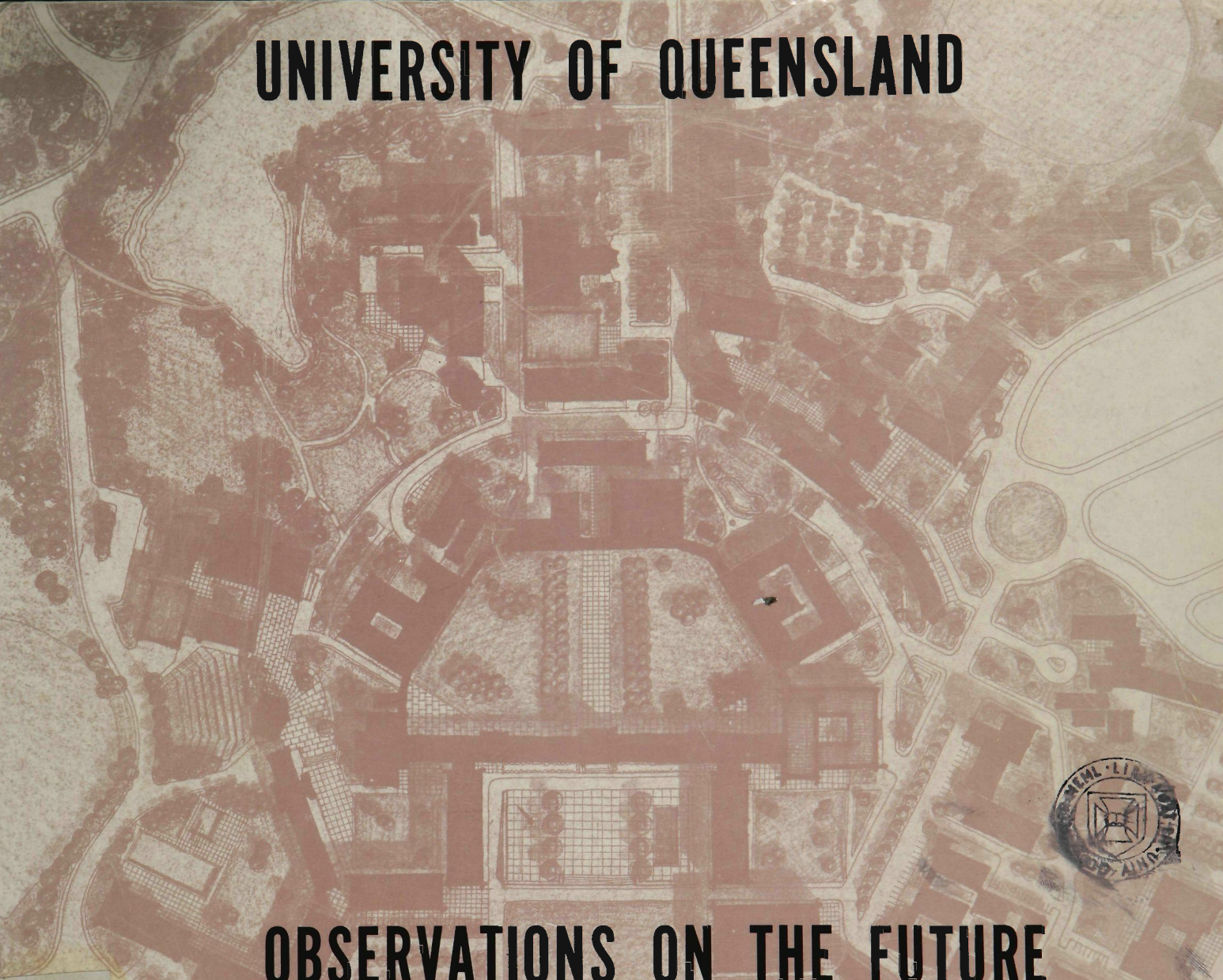
UNIVERSITY OF QUEENSLAND



OBSERVATIONS ON THE FUTURE DEVELOPMENT OF THE CAMPUS

GARETH E. ROBERTS

NOVEMBER 1969

UNIVERSITY OF QUEENSLAND

OBSERVATIONS ON THE FUTURE DEVELOPMENT OF THE CAMPUS

GARETH E. ROBERTS

NOVEMBER 1969

THE CAMPUS 1967

TELEPHONE: 71 1377

University of Queensland

FACULTY OF ARCHITECTURE
ST. LUCIA. QUEENSLAND. 4067

PROFESSOR GARETH E. ROBERTS
M.C.D., B.ARCH., F.R.A.I.A., A.R.I.B.A.,
M.A.P.I., A.M.T.P.I.

GER:NB

31st October, 1969.

The Acting Vice-Chancellor,
University of Queensland,
ST. LUCIA.

Dear Professor Teakle,

This report contains observations on the future development of the campus of the University of Queensland. Since taking up my appointment here last year I have been involved in matters relating to the development of the campus, as a member of the Buildings and Grounds Committee. This involvement has led me to the conclusion that a new master plan for the development of the campus is among the most urgent needs of the University.

The ideas contained in this report do not constitute a plan. They are, rather, ideas from which a plan could be developed. They have emerged as a result of my membership of the Buildings and Grounds Committee, discussions with members of the University community and my own observations.

In some fundamental ways the ideas put forward depart from the conception of the original designers of the campus. But the circumstances which exist today, and are likely to develop in the future, call for a fundamental re-appraisal of the concept and of the requirements of the University.

The dramatic increase in numbers, and in traffic and car parking requirements, are among the factors which must be taken into account in assessing the physical requirements of the University. In putting forward my ideas in this way, I hope a useful purpose will be served in focussing attention on a number of fundamental issues. I believe the future success of the campus depends upon the wise determination of these issues.

Yours sincerely,

GARETH E. ROBERTS
Professor of Architecture

ACKNOWLEDGEMENTS

Although the ideas and views presented in this report are my own, its production would not have been possible without the helpful advice and practical assistance I have received from many people on the campus. In particular, I would like to thank the Acting Vice-Chancellor, Professor L.J.H. Teakle, for authorizing the re-arrangement of my departmental responsibilities to enable me to undertake the work, and to him and to the President of the Professorial Board, Professor E.C. Webb for reading the manuscript and for their helpful advice and comments.

I have been assisted by the Acting University Architect, Mr. K.S. Crump and members of his staff on matters relating to the existing development, and I am particularly grateful to Mr. Paul Noskoff who drew the perspective sketches in this report.

I am grateful also to Mr. K.B. Davidson of the Department of Civil Engineering for his advice on matters relating to traffic and car parking. My colleagues in the Department of Architecture have assisted me in a number of ways.

Mr. Marquis-Kyle has acted as Head of the Department while I have been engaged on this work. Mr. L.B. Keeble has offered invaluable advice on the text and Mr. G.F. de Gruchy has undertaken the responsibility for editing the document, and Mr. D. Simpson prepared the model of the campus illustrated on page 7.

I am grateful to Mr. E.W. Hollywood for the photographic work, and in particular, to Mr. J.A. Coker who prepared the pictures and Miss J. Just who advised on layout. Mrs. C. Thompson of the University Press made very useful suggestions on the format of the document. Miss J. Hoare undertook the typing. Mr. P. Breen of the Printery gave invaluable advice and printed the report.

CONTENTS

INTRODUCTION

Among the most difficult and urgent problems confronting society today are those concerning the development and redevelopment of towns and cities in order to accommodate the rapidly increasing numbers of people who are congregating in urban centres to live and work.

In a number of ways the problems confronting rapidly expanding universities are a microcosm of the broader urban problems facing the cities which they serve. The University of Queensland is no exception. It finds itself in a situation in which it has insufficient accommodation to meet the needs of students and staff and inadequate funds either to provide urgently required new accommodation, or to adapt existing accommodation to make more efficient use of available space.

When the original plan for the development of the University was drawn up before the Second World War nobody could have foreseen the possibility that within thirty years the University community at St. Lucia would number 15,000 people. Today the University has a population larger than many Australian towns.

The amenity of the campus is being eroded by the impact of the motor vehicle and by the erection of temporary structures which have been built in an attempt to relieve the most urgent pressures on the existing accommodation.

Since the war many new buildings have been provided. Though unrelated in form and appearance to the original buildings which form the nucleus of the University, the majority of these new buildings are fine individual designs. But taken together they reflect the absence of a comprehensive design for the total future development of the campus, which goes beyond the original concept.

The need for a new master plan is urgent. The future efficiency and appearance of the campus, indeed its whole environmental quality, will depend upon the arrangements made for traffic and car parking, the landscaping and general treatment of the University grounds and most of all upon the design and siting of the new buildings to be erected during the next two or three triennia. These include a new central library, a

Great Hall, a Law School, Physical Education and sporting facilities and departmental and administrative accommodation.

This report attempts to highlight a number of the problems and to suggest ideas upon which a master plan for future development could be based. The development of such a plan in detail is a complicated matter beyond the scope of this report, which is concerned mainly with principles.

The future requirements of the University in terms of its ultimate purposes and of likely student enrolments and staff requirements must be settled before an effective long-range plan can be formulated.

St. Lucia has outstanding natural assets and already has a number of fine buildings. Its establishment on the scale originally planned represented an act of faith in the future of University education in Queensland. Assuming a reasonable allocation of funds and effective organisation it should be possible, by using the design and technical resources available today, to realise its potential, and for St. Lucia to be numbered among the finest University campuses in Australia.

THE SITE

The land for the campus at St. Lucia was the gift of Dr. and Miss Mayne of "Moorlands", Brisbane. It had an area of approximately 222 acres including land later transferred to the colleges of the University. It was bounded on three sides by the Brisbane River and on the fourth by Mill Road and Upland Road. Subsequently further land west of Mill Road has been either acquired, made available by the State Government or purchased from the Brisbane City Council. Today, the total area of the campus including the sites of Cromwell College and International House is approximately 250 acres. The site rises gently from a belt of flat land subject to flooding to a plateau upon which the original University buildings were built in the 1930s in accordance with a master plan designed by the Brisbane firm of Architects, Hennessy, Hennessy & Co.

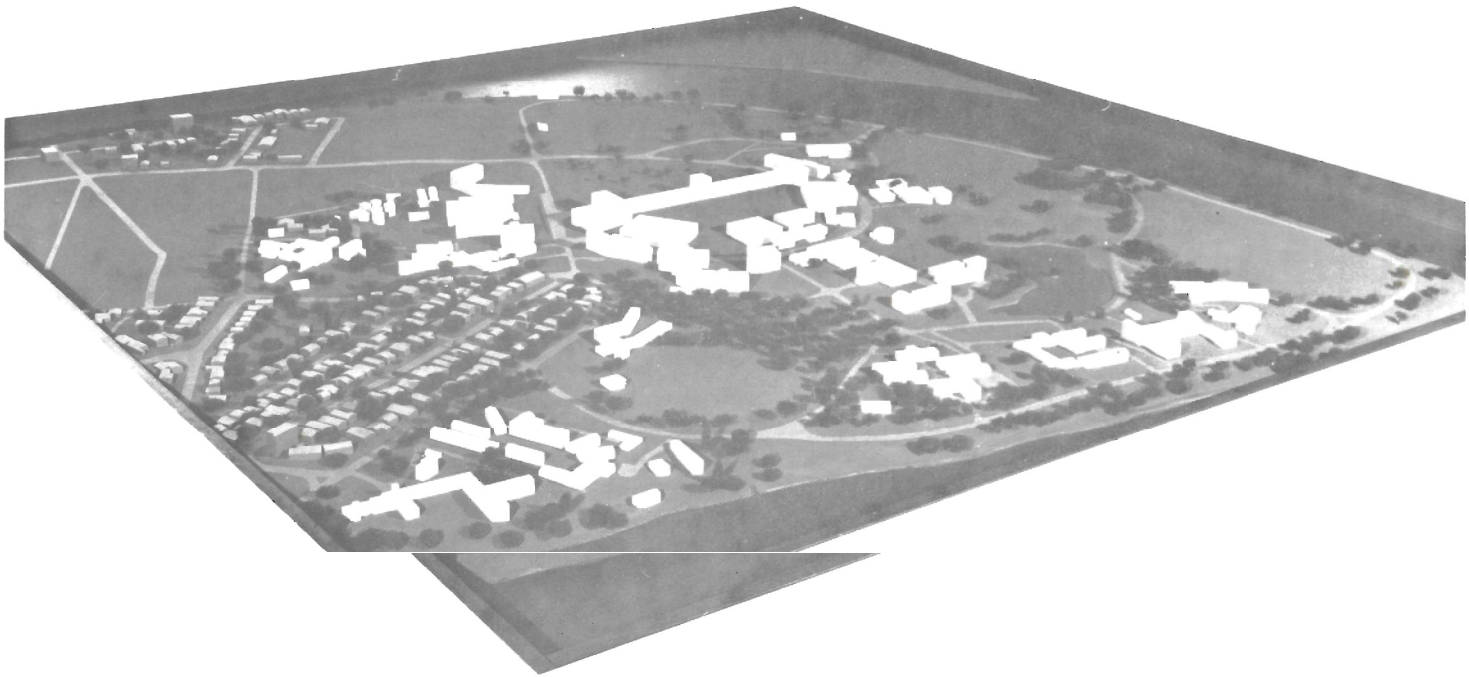
Convenient accessibility to the city is partly dependent upon the existence of adequate public transport facilities. The absence of a bridge across the river in the vicinity of the University is a handicap for those living in the Southern suburbs, and the desirability of providing an improved link with the city centre in the future is apparent. While it is likely that the majority of staff and many students will continue to depend upon private cars for travel to and from the campus the provision of improved and more frequent public transport facilities might relieve the parking problem, and make the campus more easily accessible for those who cannot or do not wish to use private transport.

The site is in many ways ideally suited for a University campus. The high ground is the natural location for the buildings; there is sufficient flat land to provide a number of ovals, and there are attractive features such as the lagoon. The river itself provides a splendid setting for the buildings. Although the geological structure of parts of the site makes the growing of large trees difficult, landscaping can and should play an important part in the creation of an environment appropriate for the University.

At the time when the University moved to St. Lucia the adequacy of the site in terms of area would not have been in question but in the light of subsequent

development, and the present rate of growth, it is regrettable that land adjacent to Hawken Drive was not acquired by the University when it was available. In future no opportunity should be lost of acquiring land or property adjacent to the campus which would be suitable for University purposes.

In the circumstances which now exist it is of the greatest importance to ensure that the land which is available, or likely to become available in the future is put to the best possible use, and the detailed master plan should include proposals for all land in the possession of the University at St. Lucia.



MODEL OF THE CAMPUS SHOWING EXISTING DEVELOPMENT

THE SITE LOOKING EAST

LEGEND - UNIVERSITY BUILDINGS

1 MAIN BUILDING
2 LIBRARY
3 CHEMISTRY
3a
4 BOOKSHOP
5 GEOLOGY
6 PHYSIOTHERAPY
7 PHYSICS
8 PHYSICS ANNEXE
9 RADON
10 BIOLOGICAL SCIENCES
11 ANATOMY
12 INDUSTRIAL CENTRE
13 VETERINARY SCIENCE
13a VETERINARY SCIENCE EXTENSION
14 GLASS-HOUSES
14a BUSH HOUSE
14b COMMUNAL FACILITIES
14c HEAD HOUSE
15 AGRICULTURE & ENTOMOLOGY
16 PAVILION
17 PAVILION
18 GREAT HALL SITE
19 PHYSICAL EDUCATION
20 SOCIAL SCIENCES
21 ABEL SMITH LECTURE THEATRE
22 UNDERGRADUATE LIBRARY
23 UNION
24 STAFF HOUSE
25 PAVILION
26 CIVIL ENGINEERING ADMINISTRATION
26a CIVIL ENGINEERING
27 MINING AND METALLURGY
28 MECHANICAL ENGINEERING
29 ELECTRICAL ENGINEERING
29a ELECTRICAL PLANT LABORATORIES
30 PAVILION
31 PHYSIOLOGY
31a ANIMAL HOUSE
32 ARCHITECTURE & MUSIC
33 MICROBIOLOGY
34 LECTURE THEATRES
35 MATHEMATICS
35a CHEMICAL ENGINEERING
36 BIOCHEMISTRY
37 J.D. STORY ADMINISTRATION
38 CHEMISTRY STAGE 1
39 CHEMISTRY STAGE 2
40 MAIN BUILDING EXTENSION
41 BOAT SHED
42 INDOOR SPORTS PAVILION
43 FIRST HALL OF RESIDENCE
44 FIRE ALARM CONTROL HUT
45 COMMERCE & ECONOMICS
46 GEOG. AND BOT. RESEARCH STATION
47 FURNITURE STORE

A QUEENSLAND UNIVERSITY REGIMENT
B INTERNATIONAL HOUSE
C UNION COLLEGE
D CROMWELL UNIVERSITY COLLEGE
E KING'S " "
F EMMANUEL " "
G ST. JOHN'S " "
H ST. LEO'S " "
I DUCHESNE " "
J WOMEN'S " "
K SITE RESERVED FOR UNION THEATRE

EXISTING OR UNDER CONSTRUCTION

BUILDINGS FINANCIAL ASSISTANCE ACT 1970-1972

EXTENSIONS TO EXISTING BUILDINGS 1970-1972

FUTURE BUILDINGS

CAR PARKING AREA

N.B. ROAD LAY-OUTS ARE TENTATIVE ONLY.

IMMEDIATE PLAN FOR THE ST.LUCIA CAMPUS

UNIVERSITY OF QUEENSLAND NOVEMBER 1967 ISSUE 5

UNIVERSITY ARCHITECT K.S.CRUMP B.ARCH. A.R.A.I.A.

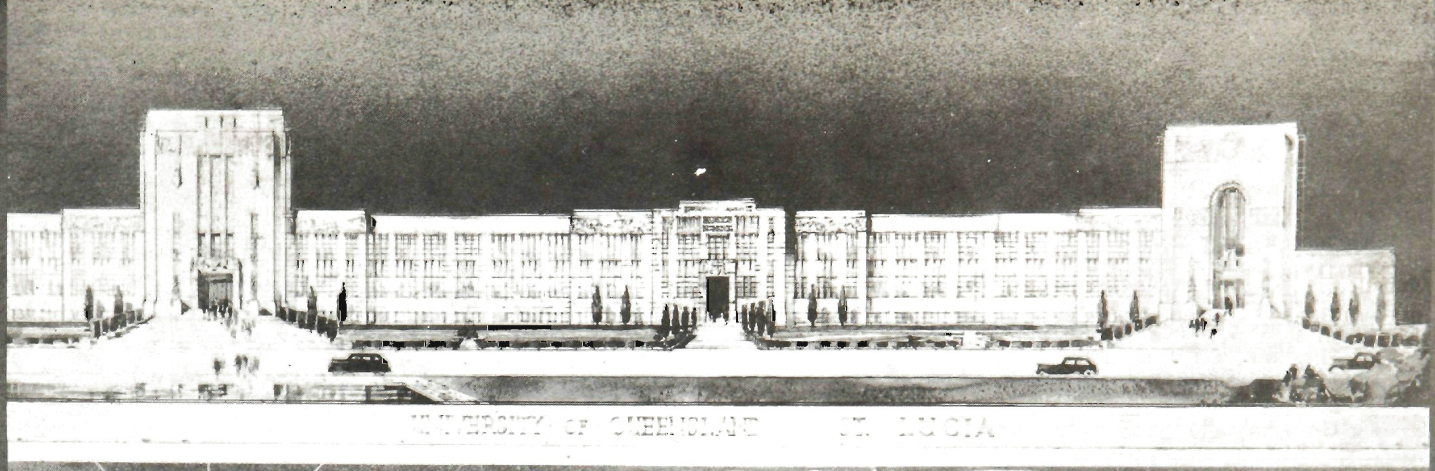
200' 0' 200'

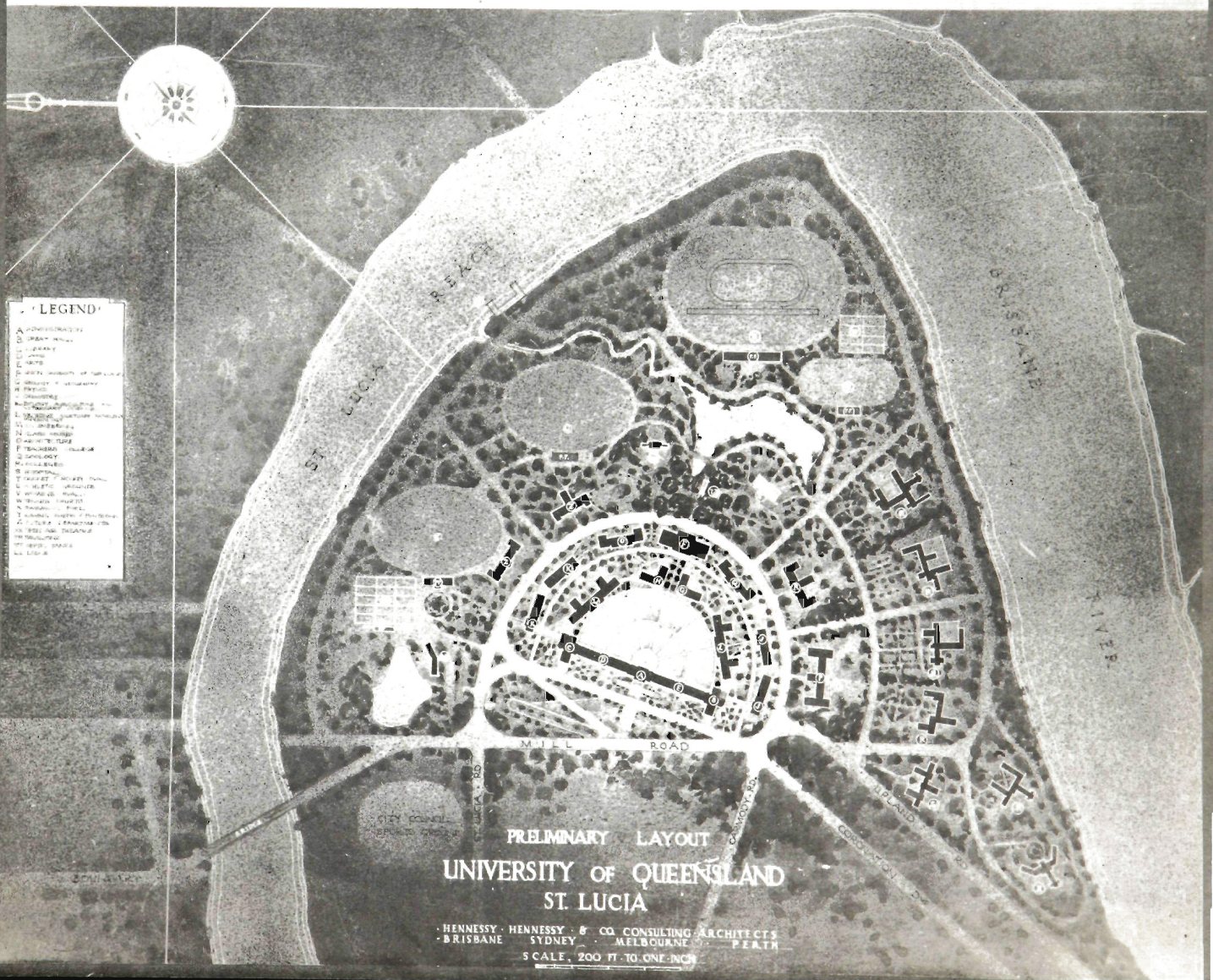
THE ORIGINAL BUILDINGS

As well as preparing the original plan for the development of the campus at St. Lucia, Messrs. Hennessy, Hennessy and Co. also designed the buildings which form the core of the campus. The axial arrangement of the plan provided for two symmetrical rows of buildings, located in a semicircle around a Great Court. The formality was emphasised by the road and footpath system, which radiated from the tower of the main building.

This tower was the focal point of the plan. It was designed as the dominant and central feature in a facade of monumental dimensions, to be terminated at one end by the Library, and by a Great Hall at the other. The buildings in the original group which form the core of the plan have been erected generally in accordance with the original design. Classical in derivation, and faced in Helidon sandstone, they are the most important element in the design of the campus.

Although they are of comparatively recent construction, having been started in the 1930's their particular importance lies in the fact that they are the visual symbol of the University at St. Lucia. For this reason their external appearance should be preserved for posterity and future work should endeavour to integrate the new with the old.





PRELIMINARY LAYOUT

UNIVERSITY OF QUEENSLAND
ST. LUCIA

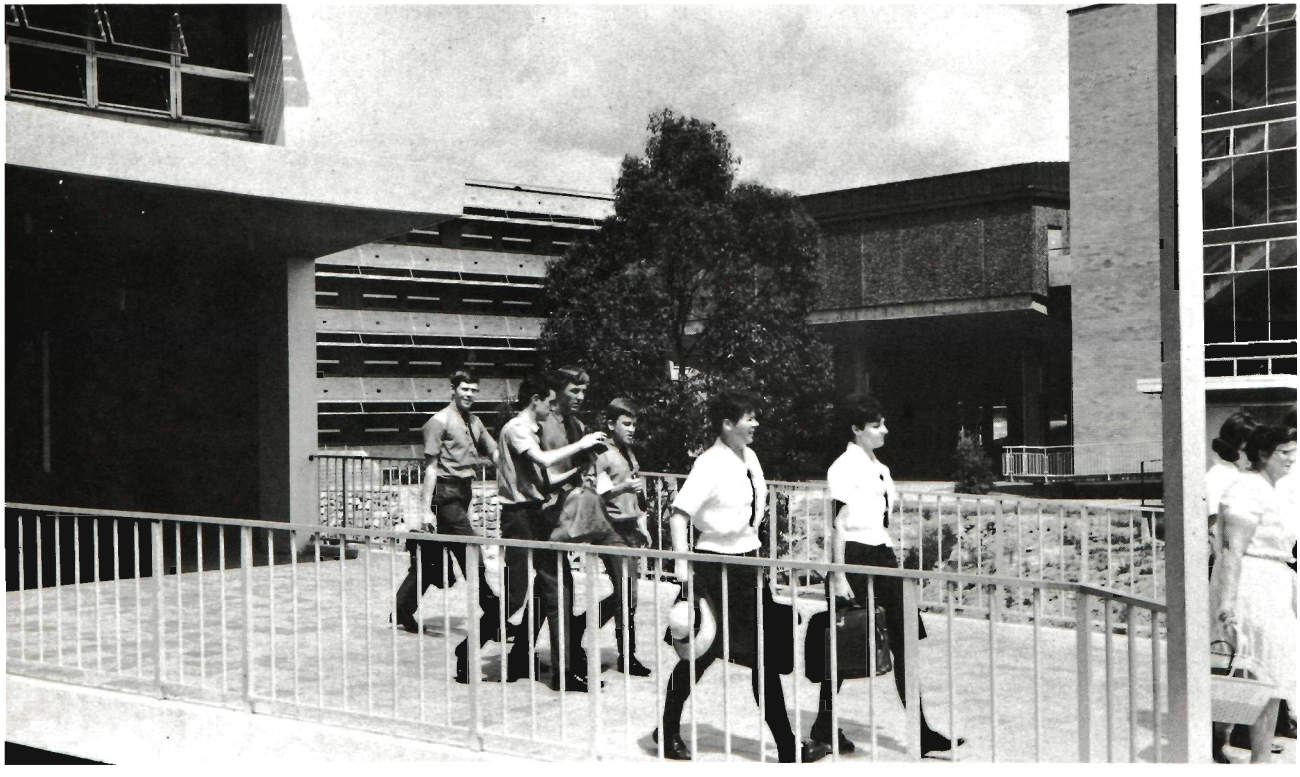
HENNESSY · HENNESSY & CO. CONSULTING ARCHITECTS
BRISBANE SYDNEY MELBOURNE PERTH

SCALE, 200 FT. TO ONE INCH

POST-WAR BUILDINGS

Since the second world war many buildings have been erected at St. Lucia to accommodate the growth of the University and the diversification of its activities. Those permanent buildings which form a part of the original design of the central group and are located within the existing Circular Drive have, with the exception of the Physics annexe and the University Press and Bookshop, been built in accordance with the original plan and faced in Helidon stone.

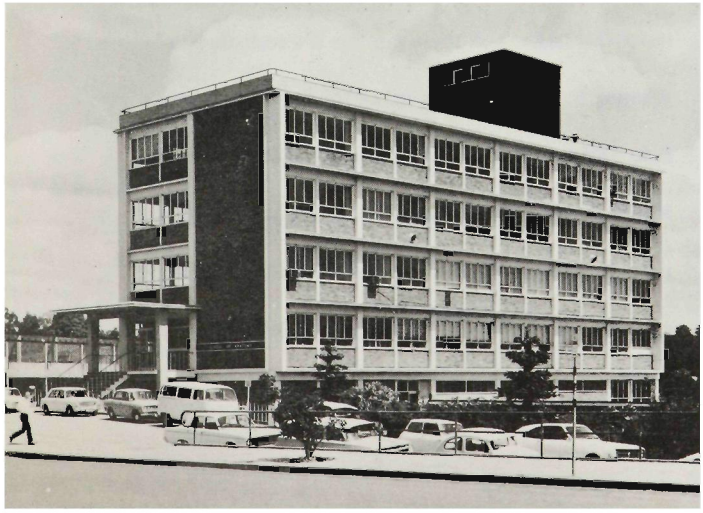
Those buildings located outside Circular Drive have been subject to no such overriding design control. They include a number of fine individual buildings, but the wide variety of forms, materials and colours used has produced a total result which reflects the absence of a comprehensive design for the ultimate development of the campus.



University of Queensland Union

J.D. Story Administration Building

Anatomy Building



POPULATION

The graph opposite illustrates the dramatic increase in student enrolment which has taken place during the last ten years. The total figure of 15,050 for 1969 is made up of 7,250 full-time, 5,200 part-time internal, and 2,600 part-time external students.

There has also been a corresponding increase in the full-time teaching, library, administrative, maintenance and technical staff, which grew from 1,116 in 1960 to 2,477 in 1968. These figures raise the question of the figure which should be used for planning purposes in terms of either the optimum or probable ultimate size of the University, whichever is regarded as appropriate.

Cities may be planned for unlimited growth but it would be undesirable to adopt a similar basis for the planned development of the University. For the purposes of planning the campus it would be desirable to fix an upper limit for the number of full-time students to be enrolled at St. Lucia if traffic capacity, and parking accommodation are to be adequate and provided for without detriment to the amenity and the quality of the environment of the campus.

The determination of a figure of this kind depends upon matters of Government and University policy which are beyond the scope of this report, but it is suggested that an upper limit of 10,000 full-time students should be adopted as the basis for the planning of the physical development of the campus at St. Lucia.

The attainment of this figure must necessarily be related to a time scale. Among the most important factors affecting this issue are the programme for the establishment of a second University at Mt. Gravatt and policy concerning the future role of colleges of advanced education. There is an urgent need for definite decisions on these matters if a realistic programme for the development of the St. Lucia campus is to be produced. For the purposes of this report it is therefore assumed that the St. Lucia campus should provide accommodation for 10,000 full-time students and that this figure will be reached by 1980.

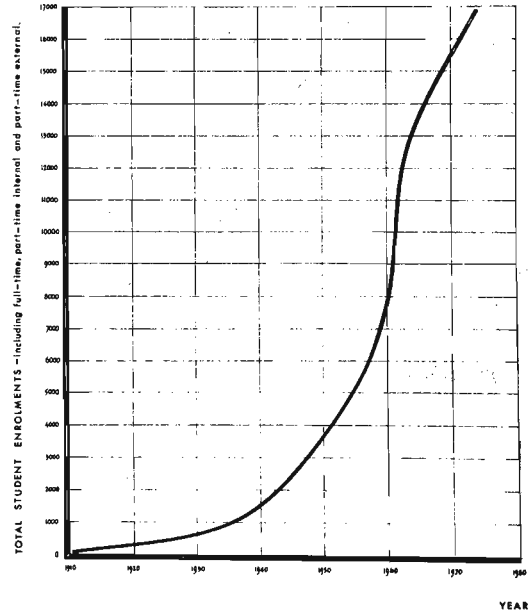
Other factors to be taken into consideration are -

(a) the need to improve the general student-staff ratio in the University. This need is recognised in the current report of the Australian Universities Commission, and the future building programme should provide accommodation for a substantial relative increase in academic staff;

(b) the possibility of providing on campus accommodation for married staff and students if the University is to function as a well-balanced community;

(c) the effect on accommodation requirements of a likely increase in the proportion of post-graduate students.

GRAPH OF INCREASE IN STUDENT NUMBERS



TRAFFIC AND CAR PARKING

Population increase and the impact of the motor vehicle are the main factors which have precipitated the most serious urban problems confronting contemporary society. St. Lucia is no exception to this rule. In recent years the increase in the use of private vehicles by students and staff has made it necessary to utilise large sections of the campus for car parking.

The location and arrangement of the majority of the existing areas available for parking are inconvenient and unsightly. Kerbside parking, which greatly detracts from the appearance of the campus, is a hazard to pedestrians and reduces the effective width of the available roadways.

The road system itself is neither convenient nor safe. The main traffic routes at present are Circular Drive, Front Drive and Mill Road. Their width and alignment encourages the movement of traffic at speeds which are undesirable and highly dangerous in a situation where the location of buildings necessitates the continual crossing of these routes by large numbers of pedestrians.

Priority for pedestrians is a fundamental principle of campus design. It is of the greatest importance to ensure that, as far as possible, the arrangement of the roads and the location of buildings permits the safe and free movement of pedestrians between buildings. The development of a plan which provides for a vehicle-free precinct is most likely to achieve this result.

The extent to which private vehicles are used for travel to and from St. Lucia is a measure of the inadequacy of the public transport system serving the University. It has been estimated that, when the University has a full-time student population of 10,000, the car parking demand might be as high as 5,000 spaces. Surface car parks to cope with such a demand would necessitate the conversion of much of the existing open space into parking areas to the great detriment of the appearance of the campus.

Near Social Sciences Block

Front Drive

Adjacent to Maths Building

LANDSCAPE AND STREET FURNITURE

St. Lucia is a fine natural setting for a University campus. Among its natural assets are its topography, the river, the lagoon, its views of distant hills and its climate, which permits the growth of a wide range of trees, shrubs and plants. The quality of the environment and the appearance of the campus depend not only on the architectural design of the individual buildings but on the treatment of the spaces between the buildings and on the setting created for them.

Landscape, the design and the materials used in the construction of roads and footpaths and the items used to furnish the open spaces of the campus are important elements in the creation of an appropriate environment for the University. Landscape could be used far more effectively than has been the case so far in realising the full potential of St. Lucia as a University campus. Appropriate species of trees should be used to define spaces and provide shaded areas for use during the hot summer months. Flowering trees and shrubs should be used to provide highlights in a comprehensive landscaping scheme designed to complement the building forms.

Items of street furniture such as seats, litter bins, and signs are small but important items, the design and location of which require careful detailed attention if they are to contribute to the quality of the environment. All too frequently they are unnecessarily disturbing elements in the total scene. Sculpture and fountains can be used with great effect to create points of interest, and advantage should be taken of the lagoon and the river to provide areas for enjoyment by the University community.

The University is much used by night as well as by day. The lighting system should be designed to ensure that the buildings and grounds are safe and attractive during the hours of darkness, and well-designed light standards and fittings should be used for this purpose.

Front of Main Building

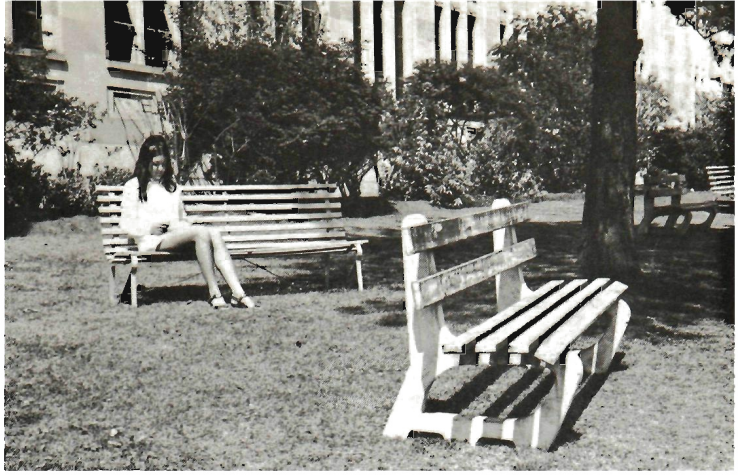
The Great Court

The Lagoon

Fountain in the Lagoon

Fountain near Library

Shillam Sculpture at Entrance to Union Building

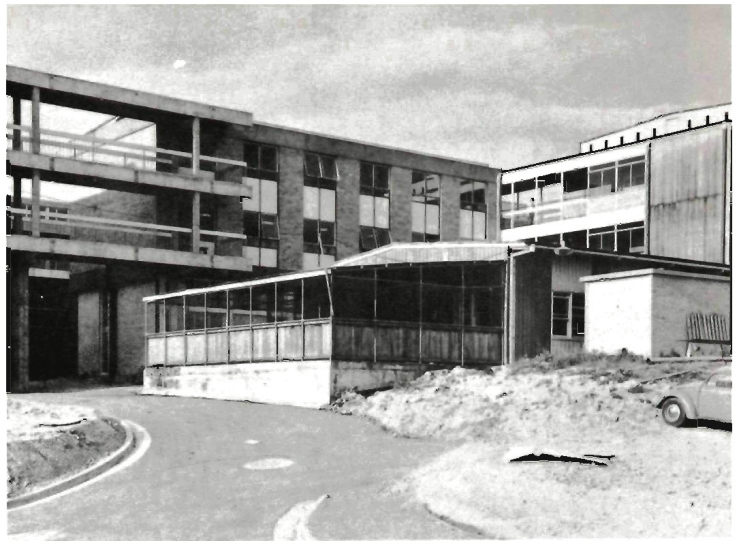


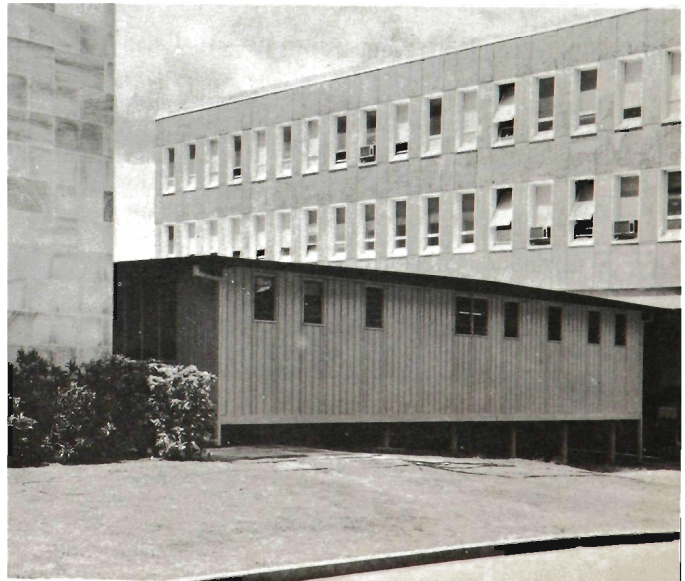
STREET FURNITURE

TEMPORARY BUILDINGS

The campus contains at present a number of temporary buildings. These are used for a variety of purposes, including teaching, staff accommodation, maintenance and storage. A few are well-designed, but the majority are derelict in appearance and greatly detract from the amenity of the campus. A programme for the removal of the worst of these buildings and their replacement by permanent accommodation should be given high priority in the future development programme.

Compelling reasons are usually advanced for the construction of buildings of this kind but experience suggests that, unless positive steps are taken to ensure that their temporary nature is recognised, they become permanent additions to the accommodation.





THE PURPOSE OF THE CAMPUS

The campus of a university should provide the best possible physical environment for the activities of the university. These activities are many and varied but their primary aim is to provide tertiary education and research facilities for the students and staff who comprise the university community. Three main elements make up the physical environment of a campus: buildings, external space and the circulation framework. The quality of the campus will depend upon the way in which these elements are individually designed and integrated.

Most aspects of University life are in the process of changing. It is likely that these changes will produce different physical requirements from those which have influenced the design of universities in the past. Universities are not only increasing in size but in the nature of their activities. New fields of learning and improved methods of education and communication, are factors which will affect the design of future buildings.

Part of the problem facing campus designers, now and in the future, is therefore going to be to determine how best to integrate existing developments with future requirements and how to make the best use of available space in the interests of the University community. Traditionally, universities have provided opportunities for the creation of much of the most notable contemporary architecture. Occasionally the external appearance of University buildings has taken precedence over the functional requirements and convenience of those who use the buildings.

The ideas contained in this report endeavour to ensure that the location of buildings and the circulation and parking arrangements will be convenient and safe. But they also seek to create a series of related spaces between buildings which will be attractive in themselves and which together will contribute to and improve the functioning and appearance of the whole University.

THE GREAT COURT

FUTURE DEVELOPMENTS

The diagram opposite illustrates a possible form for the future development of the campus.

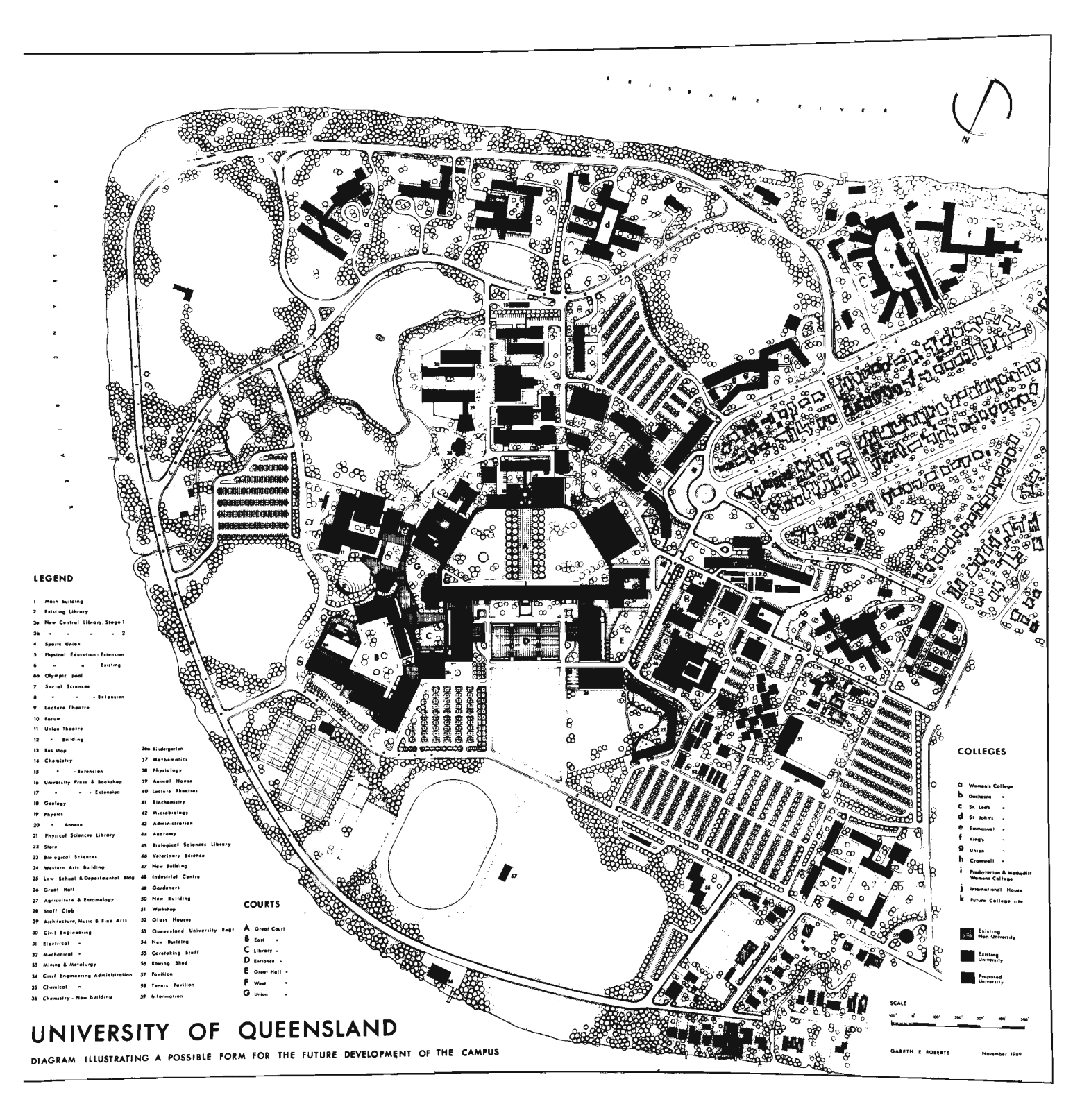
The proposed new buildings have been arranged in relation to the existing buildings to provide a series of courts of differing size, shape and character. The entrance court 'D' is shown in its possible ultimate form with a terrace forming the roof of a decked car park. Until funds can be made available for this purpose the existing lawn should be retained.

The road system enables traffic to circulate outside the perimeter of the buildings, thereby creating a pedestrian precinct into which traffic penetrates for service purposes only. Major car parking areas are conveniently located in relation to the major building groups and limited parking is provided adjacent to individual buildings wherever possible.

Extensive use of landscaping is suggested to define spaces and create informal relaxation areas. The main axis of the University from the existing tower of the Main Building to the river is emphasised by new buildings and planting to create a dignified approach to the entrance fore-court. This fore-court is contained by the proposed new Central Library, the existing Main Building and a new Law School and Great Hall. Together these buildings form the visual centre of the University.

NOTE

For explanation of buildings on diagrams showing future proposals, refer to fold-out key at the end of the report.



UNIVERSITY OF QUEENSLAND

DIAGRAM ILLUSTRATING A POSSIBLE FORM FOR THE FUTURE DEVELOPMENT OF THE CAMPUS

FUTURE DEVELOPMENT

The existing roads and permanent buildings on the campus represent a very substantial capital investment. They are the basis upon which a plan for future development should be designed. Such a plan should seek to integrate new buildings with the existing buildings so as to obtain the best possible result in terms of function, convenience, safety and architectural and environmental design.

The ideas contained in the diagram illustrating a possible form for future development aim at -

(1) re-establishing a fundamental principle upon which the original plan was based;

(2) demonstrating how the core of the University could become a mainly traffic free pedestrian precinct;

(3) improving the traffic circulation and car parking arrangements on the campus.

(4) showing how, by locating new buildings in relation to existing buildings, a series of courts could be provided, each of which would be attractive in itself and which together would improve the total civic design of the campus; and

(5) emphasising the importance of landscape.

1. The Fundamental Principle

The creation of a precinct of buildings served from the outside by a road was a fundamental principle of the original plan which provided for the majority of the departmental buildings to be served by and contained within a wide circular drive connected at each end to Mill Road (page 11). The subsequent re-orientation of the plan and the locations adopted for buildings already built has resulted in the existing Circular Drive passing between the majority of the buildings instead of outside them as was originally intended. The result is that Circular Drive is now not only a traffic hazard but the major obstacle to the creation of an environment appropriate for a University campus at St. Lucia. The ideas contained in this report hinge upon the re-establishment of this important principle which was fundamental to the original plan.

2. Traffic free Pedestrian Precinct

Differing views exist about the kind of physical environment most suitable for a university campus. Universities located on congested city sites in densely developed urban areas are likely to be more urban in character than those on generous sites in more open locations. The

St. Lucia site has adequate space to create a campus environment in which spaciousness is a major element in the design.

The idea of a precinct is not new. The Universities of Oxford and Cambridge demonstrate the historical importance of the principle of precinctual design in university development. Today the principle is being universally applied to campus development. Its successful application depends upon the segregation of the pedestrian from the motor vehicle.

The diagram illustrating the ideas put forward in this report demonstrates how a mainly traffic free pedestrian precinct could be developed at St. Lucia. It involves the elimination of Circular Drive and the development of a traffic route outside the buildings, from which vehicle access for service purposes could be provided to every building on the campus. The space now occupied by Circular Drive would become available for pedestrian use as a series of landscaped areas flowing between the buildings.

3. Traffic Circulation and Car Parking

The roadway proposed to replace Circular Drive as the main traffic route through the campus already exists except for the part between the Union Building and the proposed link with Carmody Creek Road. It would however require widening and sealing in places to bring it to a uniformly acceptable standard.

From this major road minor roads provide access and service to all buildings and parking areas on the campus. The road also provides a circulation route for public transport buses serving the University. A number of bus stops are located along its length, including a major one adjacent to the Union Building.

Car parking areas are generally accessible from the proposed major circulation road. The largest surface parking area is located on flat land on the south side of St. Lucia Rd., flanking the main approach to the University from the city. Four other surface car parks are located so as to provide convenient facilities for particular building groups. In addition, limited parking is placed adjacent to individual buildings. This should be provided wherever it is possible to do so provided it does not form a traffic hazard or detract from the amenity of the particular area involved.

The only decked parking area suggested is located under the proposed forecourt to the Main Building. The fall of the ground would facilitate its construction, and its location would be of the greatest value and convenience

to the adjacent buildings. In the light of the existing financial situation it is recognised that it will be many years before funds could be available for this purpose, but no development should be allowed to prejudice the future construction of a decked car park in this location. In the meantime the area involved should be retained as lawn.

The treatment of surface car parking areas is of great importance. They should be planted to screen the vehicles and to provide shade in the hot summer months. The planting can proceed in advance of the sealing of the parking areas, and, once agreement has been reached on the location of these areas, the planting of trees, which involves little capital expenditure, should proceed as soon as possible.

The parking areas indicated on the plan would provide for a maximum of approximately 4,000 vehicles. More could be accommodated if kerbside parking on roadways within the campus were permitted. Kerbside parking should, however, be avoided unless absolutely necessary. If the demand for parking spaces exceeds the provision indicated on the diagram and reaches the figure of 5,000 which has been suggested as likely to be necessary when the full-time student population reaches 10,000, the University will be faced with the choice of either sacrificing further open space for surface parking or building parking decks. If this need arises, the decision on what form of parking is to be adopted is likely to depend mainly upon the economic situation which prevails at the time. The amount of parking space required will also depend upon the effect of an improved public transport system serving the University.

4. **New Buildings**

The diagram suggests possible sites for new buildings which are known to be required or likely to be needed in the future. They are arranged in relation to the existing buildings so that together they form a series of courts of differing size and shape.

The ideas in this report recognise the fundamental symmetry of the original plan. They emphasise the importance of the main visual axis of the University centred on the tower of the Main Building by strengthening its definition by means of buildings and landscape. This axis is of the greatest significance and should be retained permanently. No future buildings should be located so as to interrupt views along the axis between the facade of the Main Building and the river. The design aims at improving the approach to and the setting

of the Main Building and emphasises its importance as the visual focal point of the campus.

The main facade of the University, extending from the Library to the new Western Arts Block, is a fine architectural composition in the classical tradition. Its length, however, is such that it is doubtful whether retention of the open space necessary to provide a proper setting for a facade of this length is justified and capable of being sustained in view of the pressures for accommodation now confronting the University.

Buildings now required include a new central Library and accommodation for a number of departments including, amongst others, Law, Economics and Architecture. A site is also needed for a Great Hall, and detailed consideration is already being given to the construction of a Sports Union Building. All these are buildings which should play an important role in the civic design of the campus. The ideas put forward in this report show how a number of these new buildings can be successfully integrated into the existing design and at the same time enable the open spaces created between the buildings to make a positive contribution to the environmental design of the campus.

5. Landscaping

This report emphasises the importance of landscaping in the development of the campus. Brisbane's climate provides the opportunity to grow a wide variety of trees, shrubs and plants, and these could be used with far greater effect than has so far been the case. Landscape design is a specialised profession; the University would be well advised to obtain the services of a professional landscape architect to prepare a comprehensive scheme for the landscaping of the campus in conjunction with a new master plan for the building development.

It would also be worth exploring the possibility of establishing a small tree and plant nursery on the campus or at Moggill, to obtain the necessary plant material at a reasonable cost. The need to keep maintenance costs to a minimum is one of the most important factors to be considered in developing a landscape plan, and with this end in view an alternative to grass as a ground cover material should be considered for certain parts of the campus.

DETAIL CONSIDERATIONS

Entrance to the Campus

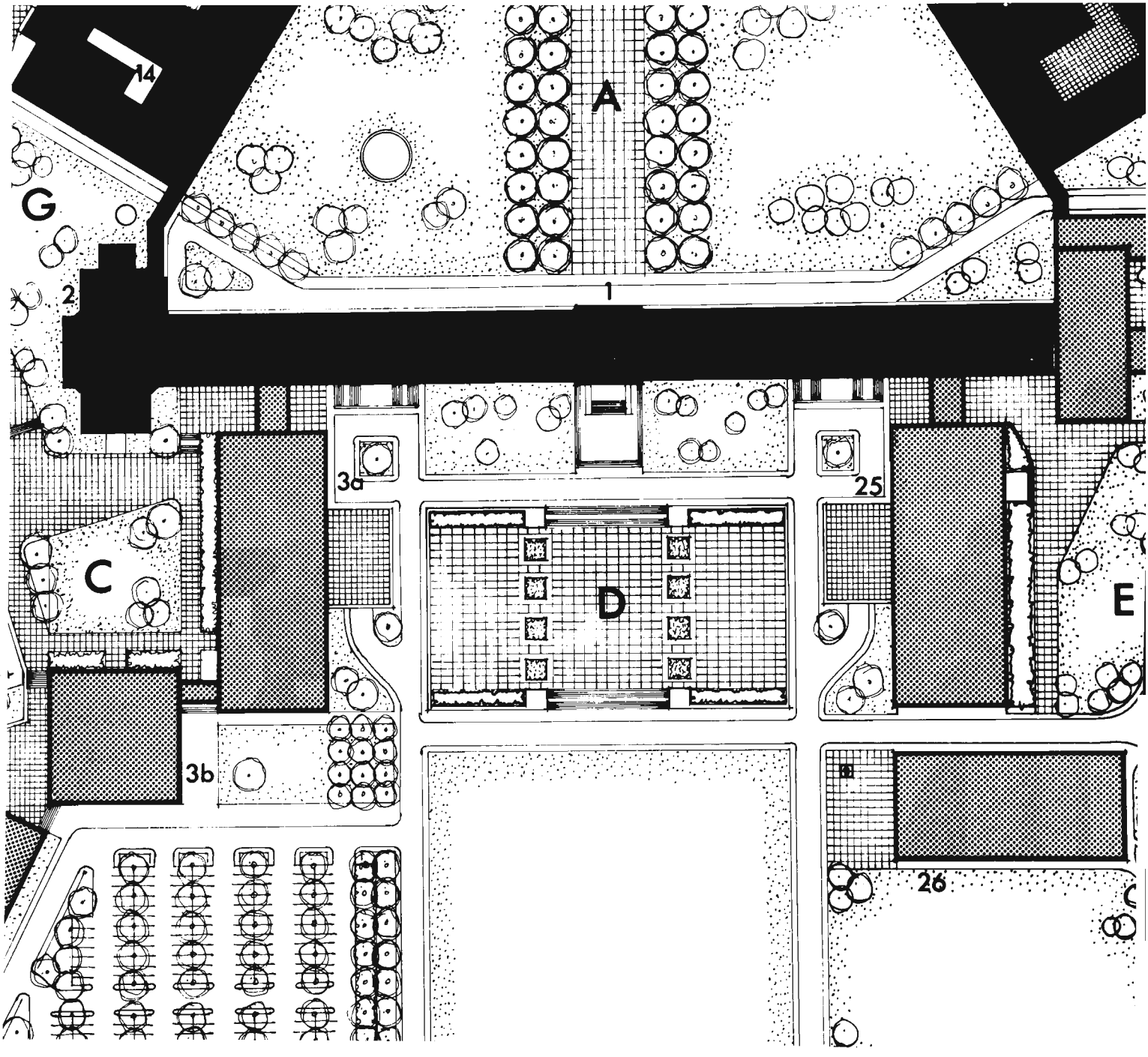
At present, there is no formal point of entry to the University grounds. A number of public roads provide access to the area, and security is a continual problem owing to the ease by which entry may be gained to the University grounds and buildings. The problem cannot be solved until the boundary of the campus can be clearly defined, and the problem of Mill Road is resolved. When this has been done, it should be possible to identify a site suitable for a formal point of entry to the campus. While it is unlikely that a formal gateway will ever be required it would be desirable to provide an entrance at which an attendant could be located in more dignified accommodation than at present exists. A plan or signboard for the convenience of visitors should be a carefully designed element in the design of the entrance, and it should include also equipment for use by the Fire Brigade to identify the location of fires.

Entrance Court

The need for an appropriate entrance and approach to an important institutional building or group of buildings is a basic design requirement. The original plan clearly intended the main approach to the University to be in the centre of the Main Building. As has already been explained the central tower of the Main Building was designed to be the visual focus of the campus. The front door to the University was to be through the tower. It is at this point on the campus that the visitor would expect to find the senior officials of the University and the Administration.

The existing arrangement whereby the Administration is located in a building remote from the visual centre of the campus is a source of confusion to the visitor and a departure from the original plan. In the long term it might be considered desirable for the Administration to return to occupy redesigned accommodation within the Main Building and for the J.D. Story Building to be used for departmental purposes.

The diagram shows two buildings extending as wings northwards from the Main Building. That on the east could be the first stage of a new central Library; and that on the west could be a building corresponding in size and shape to the Library wing which could house the Law School and other departmental accommoda-

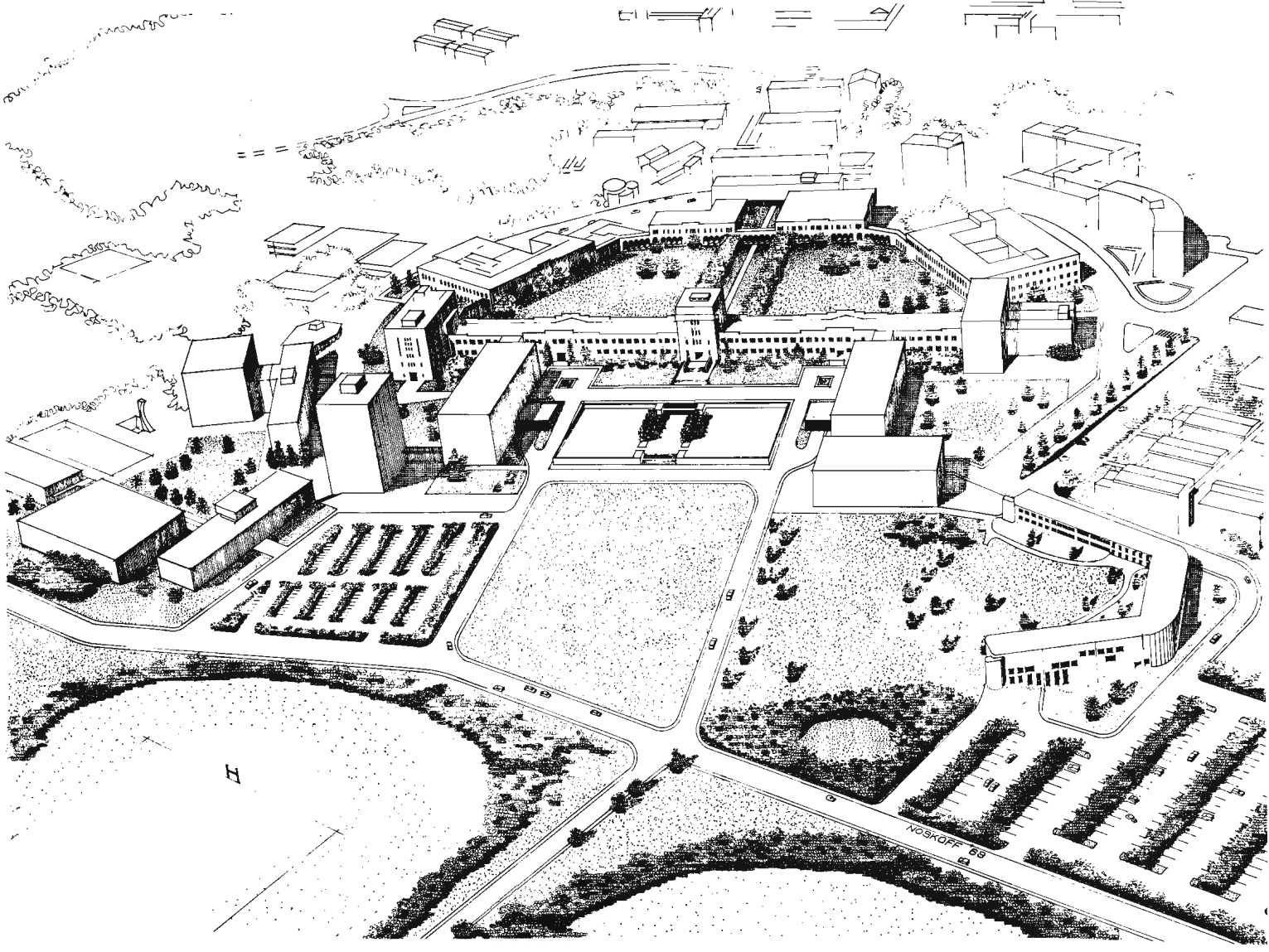


PLAN OF ENTRANCE COURT

tion. Directly to the north of this wing the Great Hall is located. Here a suitably designed building could provide a visual transition between the formal design of the Main Building and entrance court and the more informal character of the space contained by the Great Hall and the new Agriculture and Entomology Building.

The effect of these proposals would be to create an appropriately dignified approach and a centre to the University. Here would be a formal area flanked on one side by the Library and on the other by the Law School and the Great Hall. Together, these flanking buildings would emphasise and focus attention on the central tower of the Main Building. Initially this forecourt could remain as a lawn, and if and when funds become available it could be decked to provide parking accommodation beneath a paved terrace as shown on the diagram. Between the forecourt and the river the view should be uninterrupted by buildings. The architectural design of the proposed buildings flanking the entrance court should be related in height, scale and colour to the Main Building to ensure that they do not dominate the tower. It has been conclusively demonstrated in other universities that buildings designed today can be integrated with traditionally designed buildings to the mutual benefit of both.

The entrance court is the only formally designed area suggested in the scheme. Elsewhere on the campus an informal arrangement of buildings and landscape is considered to be more appropriate.

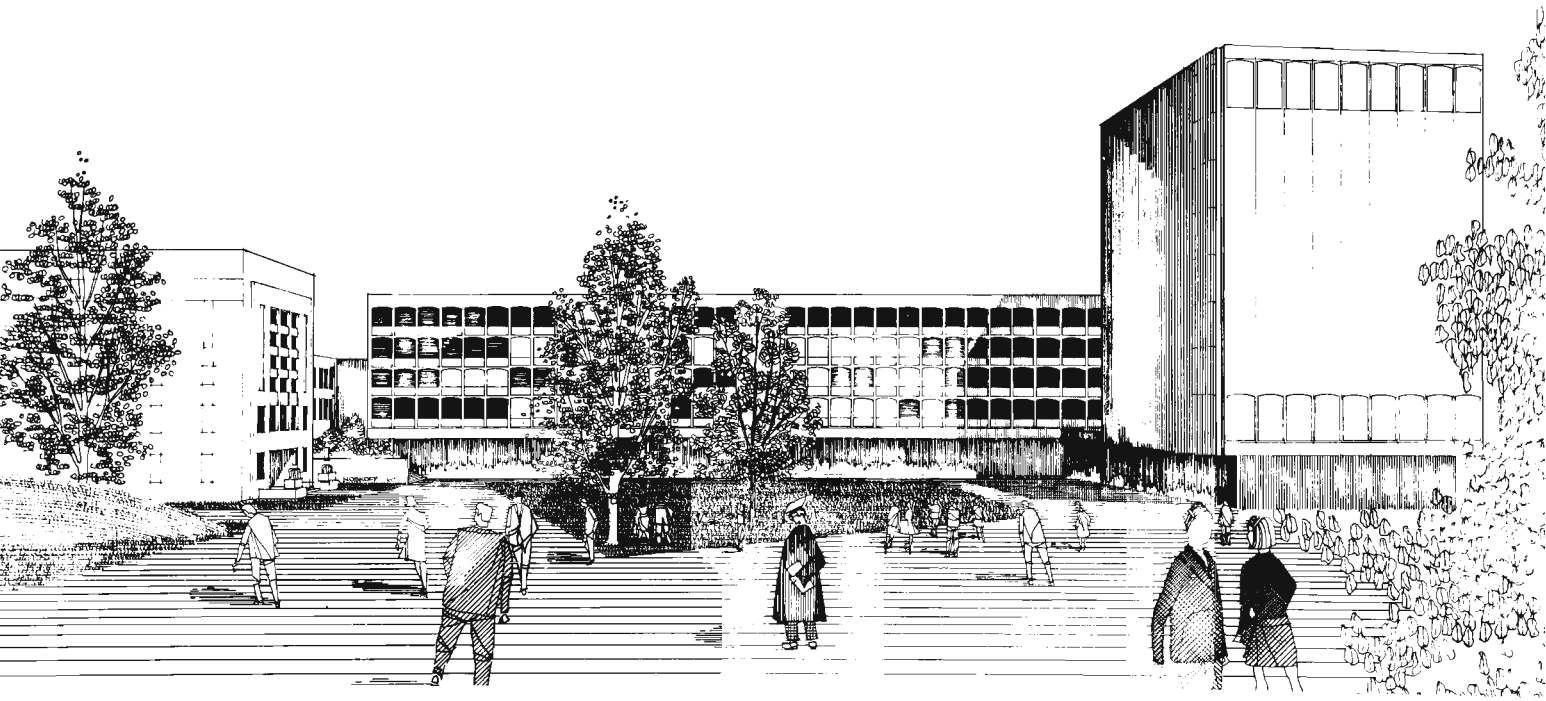


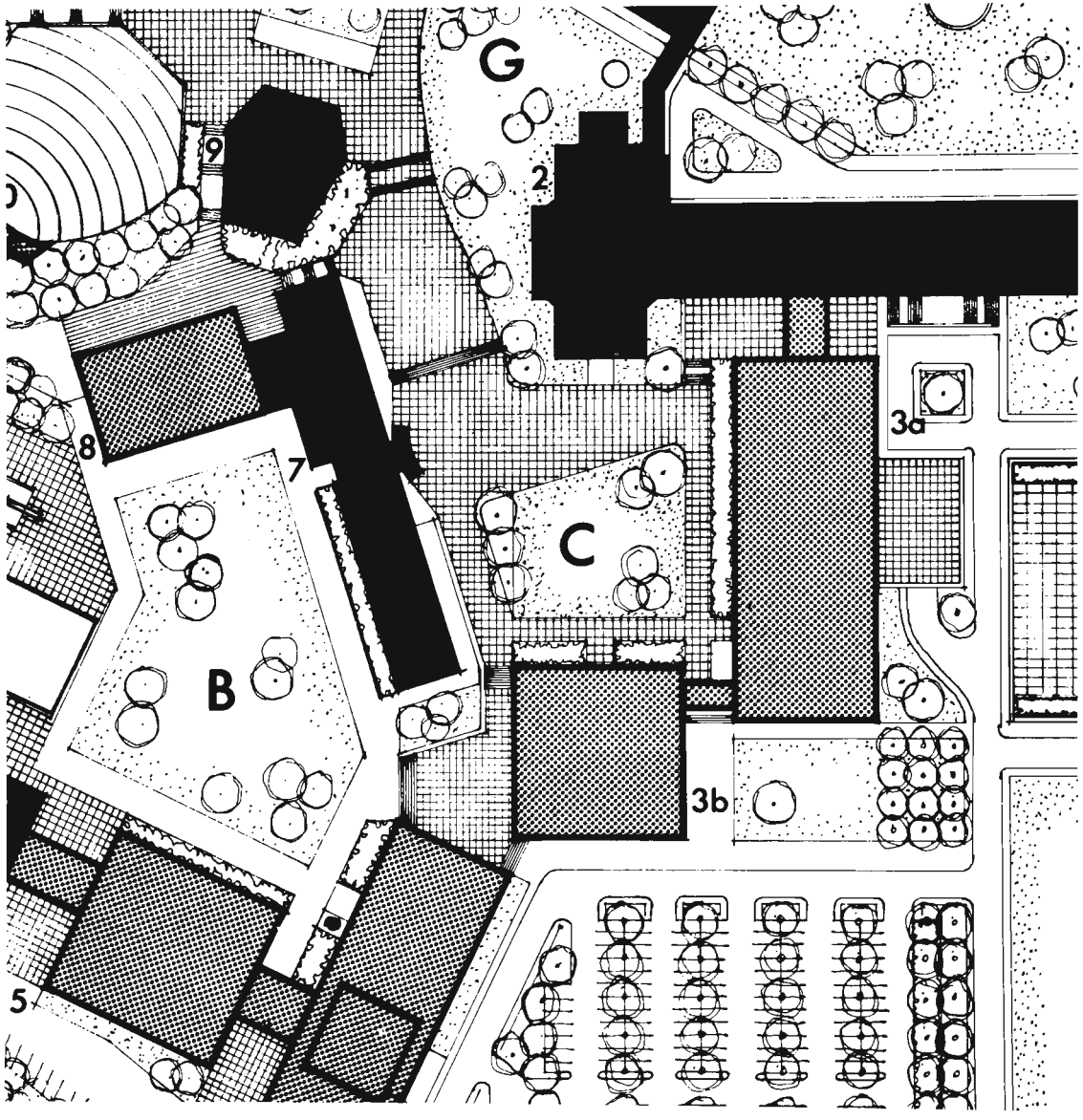
ENTRANCE COURT

and main approach to the University

Library Court

A court would be formed by the existing Library and Social Sciences Building and the proposed two stages of the new Library. This would be a partly paved and partly lawned area of informal shape and would be linked by steps to a further landscaped space adjacent to the Abel Smith Theatre and the Students' Union. Both these areas would be provided with shade trees and appropriate planting.

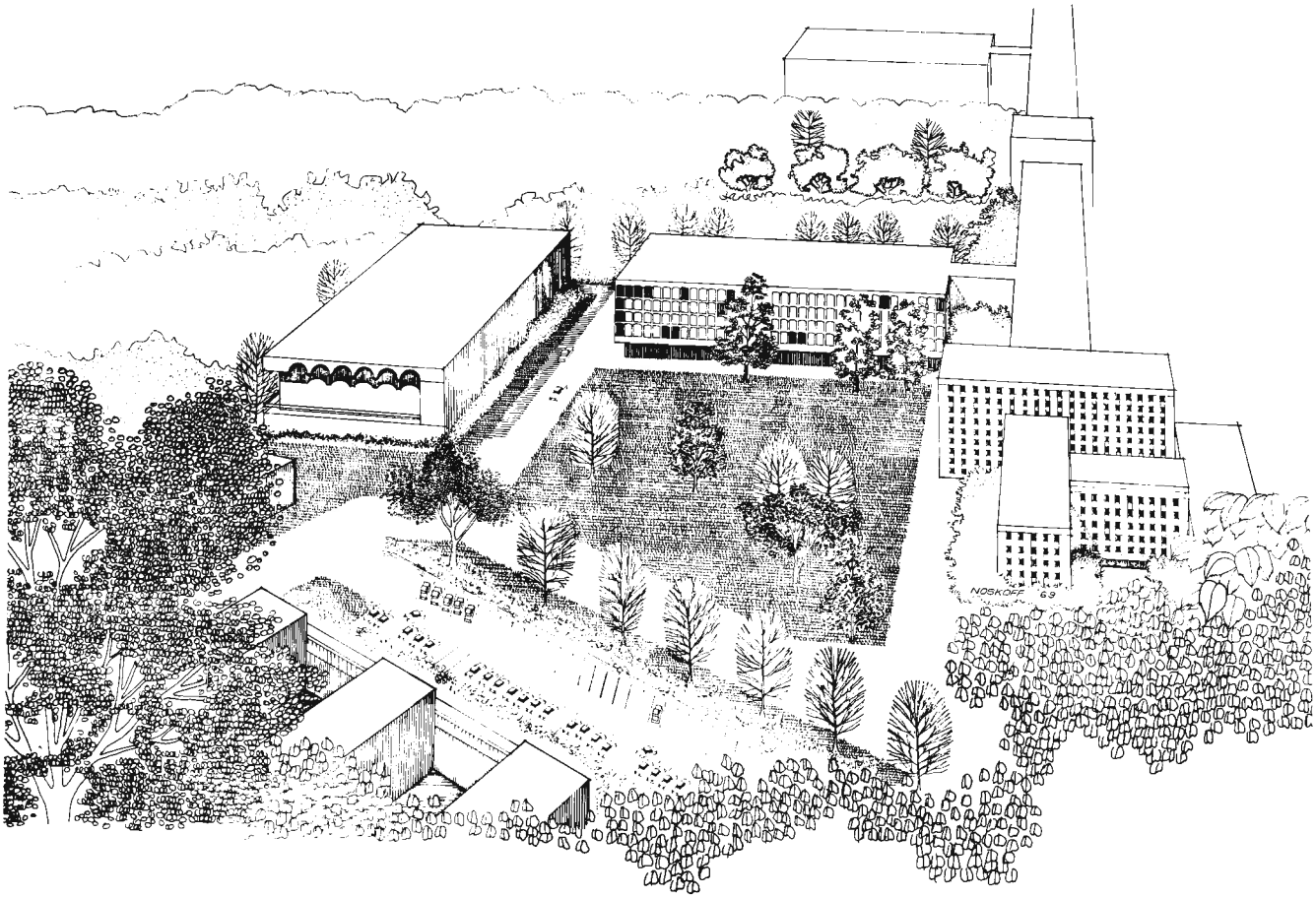


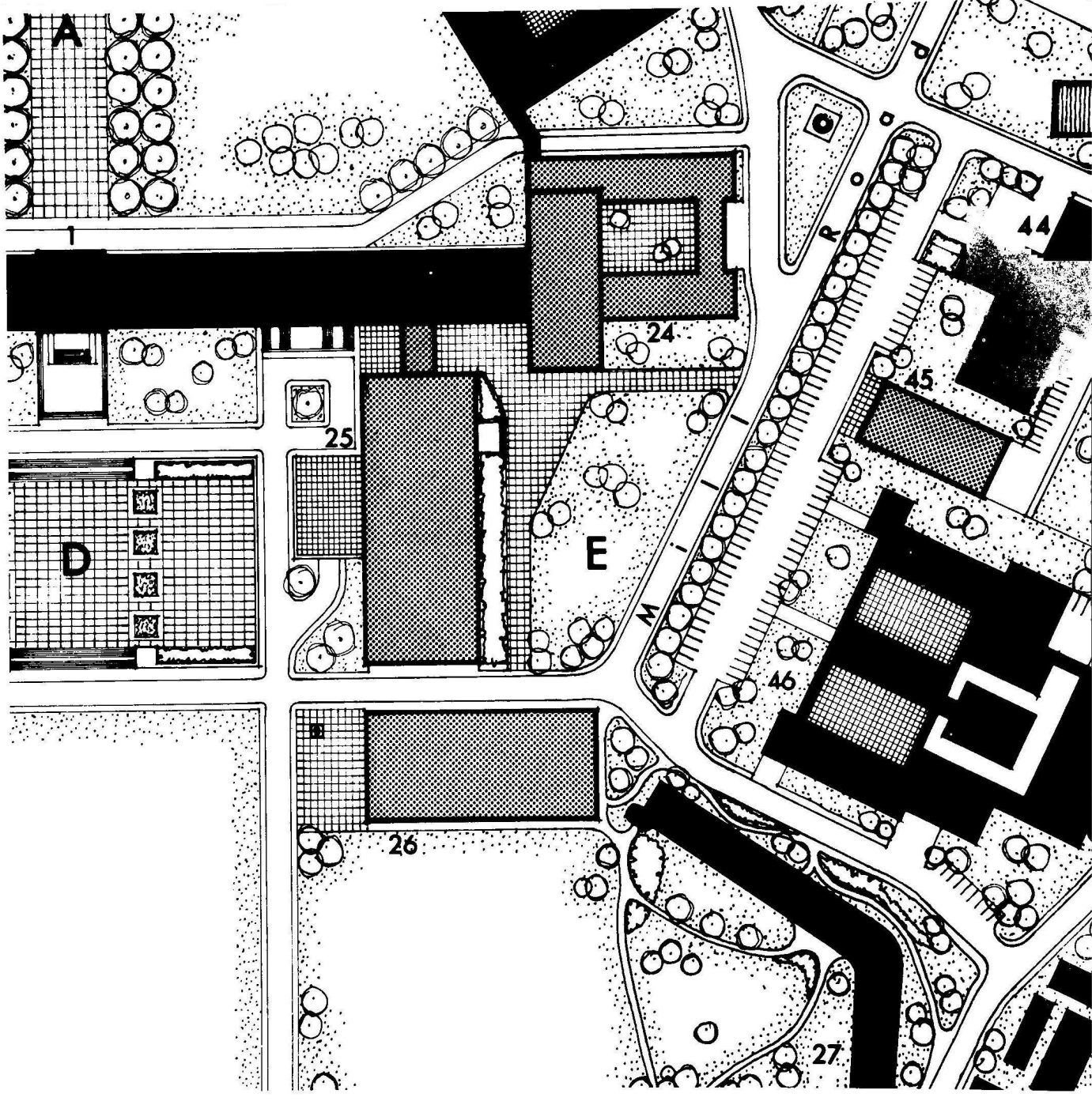


PLAN OF LIBRARY COURT

Great Hall Court

At the western end of the Main Building a court would be contained by the new Western Arts Block, the existing Veterinary School, the Great Hall and the Law School wing projecting from the Main Building. This court would be linked at its southern corner by a space defined by the end of the J.D. Story Building, the Anatomy Building and the front of the new Western Arts Block. Both these spaces would be landscaped to provide areas of lawn and would be planted with shade trees to make them attractive for use throughout the year. The establishment of these spaces depends upon the closure of Mill Road and the provision of an alternative traffic route.





PLAN OF GREAT HALL COURT

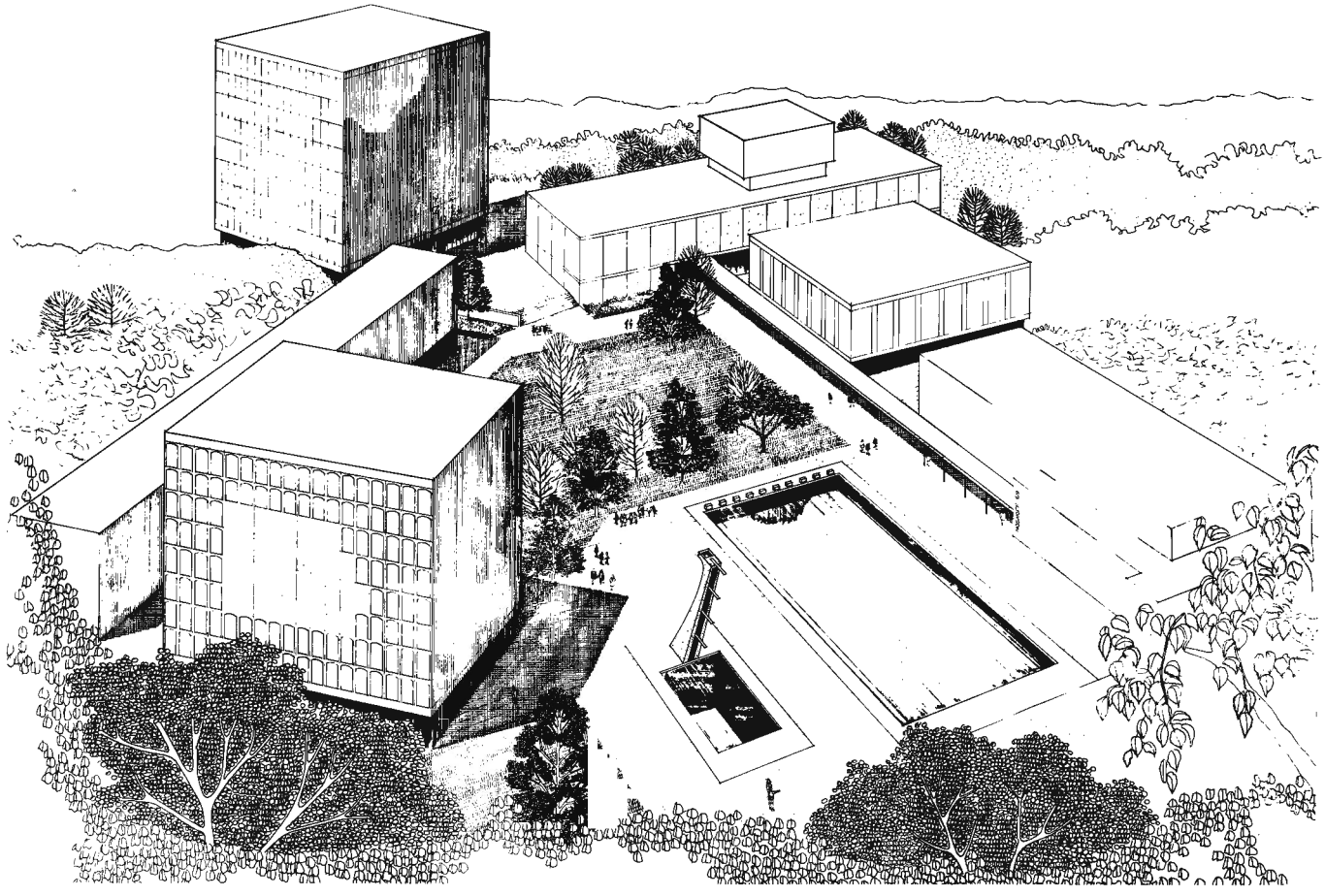
The Great Court

The Great Court is the only open space on the campus which is being completed generally in accordance with the original plan. The cloisters surrounding the court are among the most attractive features of the University. But the appearance of the court itself would be greatly improved if the landscaping were strengthened and the access road for vehicles serving the Main Building were to be paved. The scheme provides for the provision of two rows of trees to make a formal avenue along the central axis. The spaces at each end could be informally treated with clumps of shade trees, and possibly fountains or other water features, to create points of interest desirable in so extensive a space. It has been suggested that the Great Hall could be appropriately sited in the court. To do so would be to lose an opportunity to make the Great Hall an important element in the total Civic Design of the campus. If located in the Great Court it would be hidden from general view and would make little contribution to the total design.

THE GREAT COURT

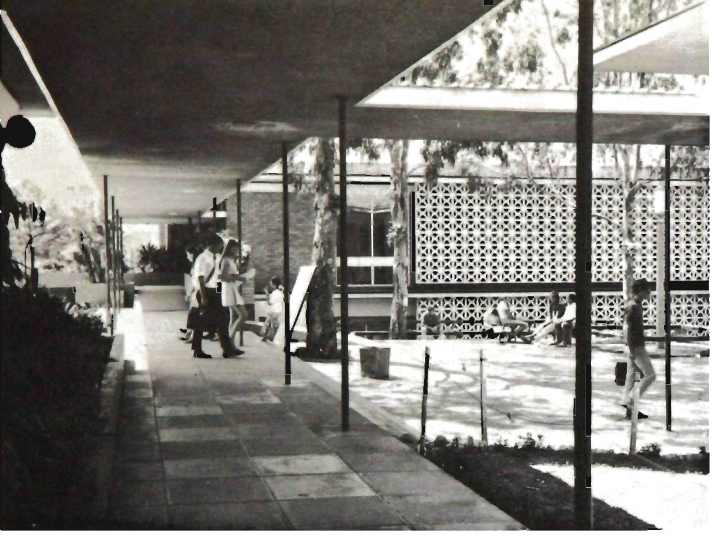
Physical Education and Sports Union

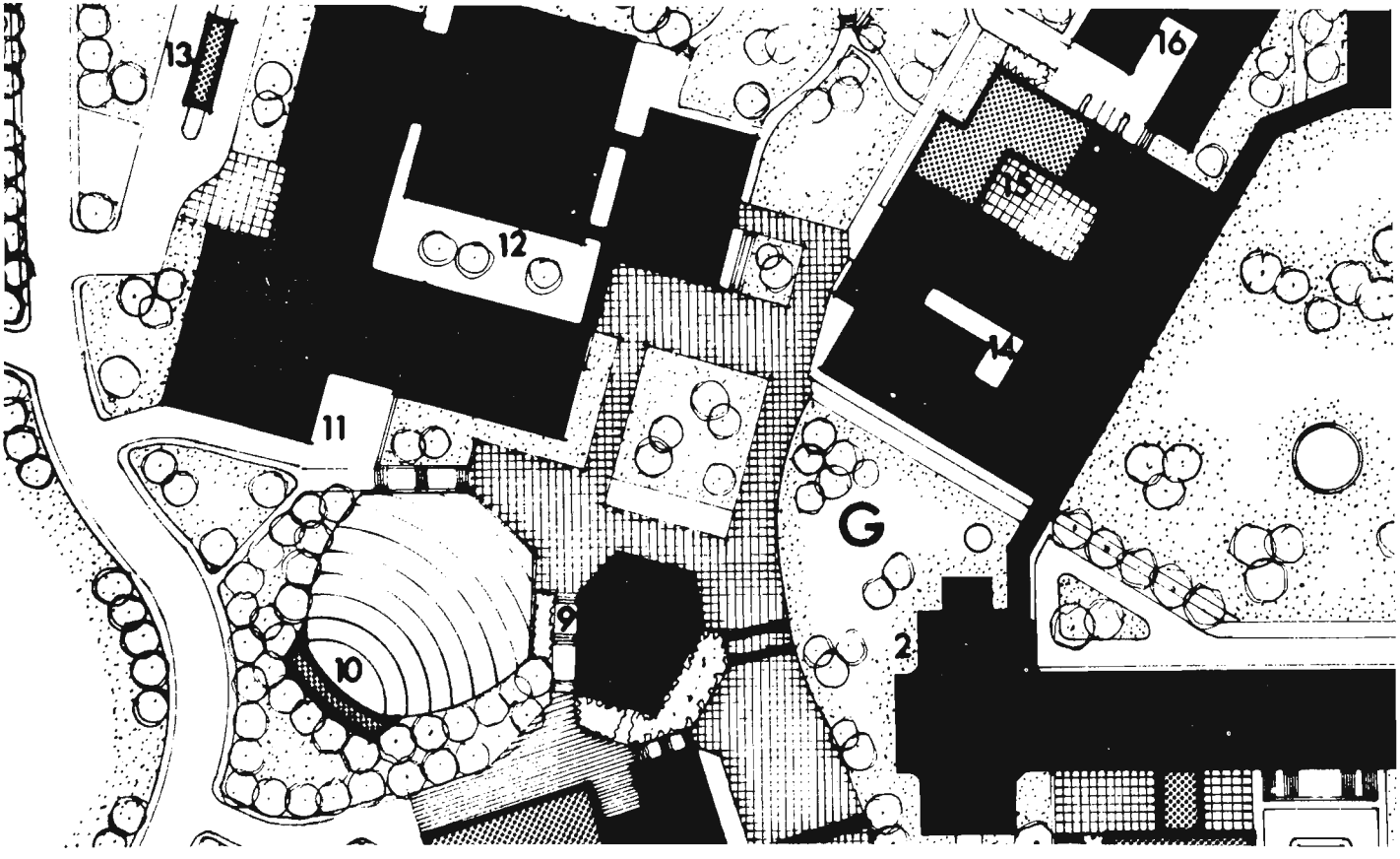
The diagram suggests an arrangement for two buildings to be located between the existing Social Sciences Building and the Physical Education Building. These could accommodate the Sports Union and an extension to the Physical Education Department. Together, these buildings would form an open-ended court in which could be placed an Olympic swimming pool. It also shows a possible extension to the Social Sciences Building which would assist in defining the area of this court. In this location the dressing room accommodation in the physical education and sports union buildings would be conveniently related to the playing fields, and some sharing of changing accommodation should be possible. The design of the Sports Union Building should recognise its visual importance as the terminal feature to the approach to the University along St. Lucia Road.



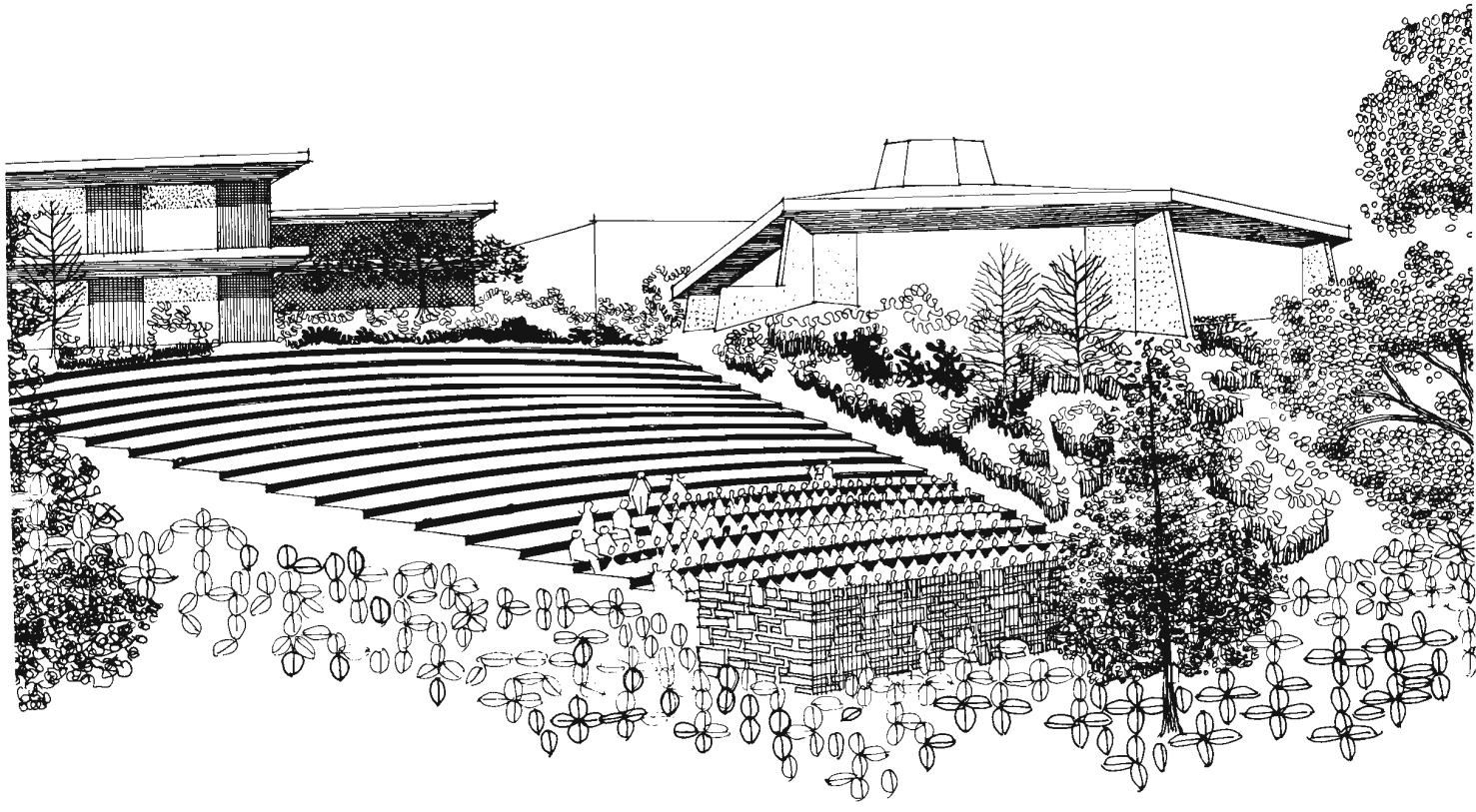
EAST COURT

**Formed by Social Sciences Building and Extension,
existing Physical Education Building
and Sports Union**





PLAN OF FORUM



Student Forum

During the academic year the Student Forum is in constant use by large and small gatherings of students. When the gathering is large - the available facilities are not ideal for the purpose, and the scheme provides for a large open forum in the space between the Union Buildings and the Abel Smith Theatre to supplement the existing facilities. The fall in the ground would enable this area to be terraced. This could be economically done by providing a series of grassed terraces edged with concrete as shown on the diagram. A simple platform with a public address system could be provided, and the forum used for a variety of purposes, including meetings, concerts and drama.

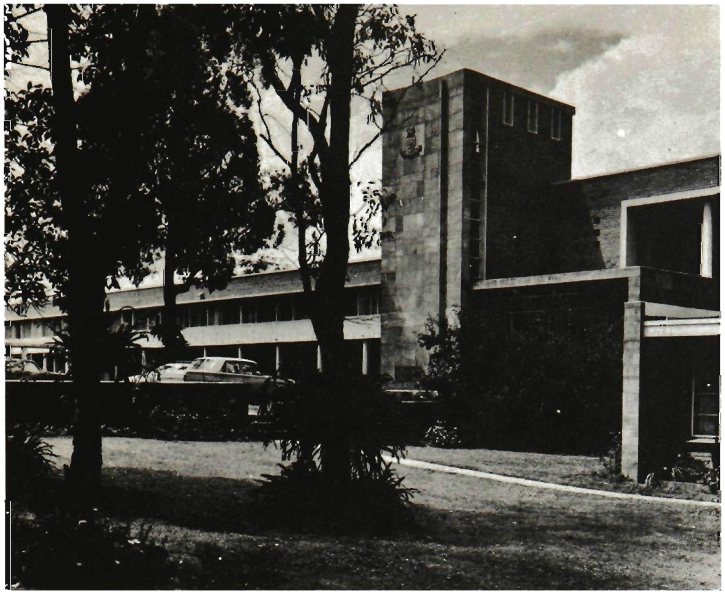
Microbiology Building Site and Forecourt to the J.D. Story Building

The J.D. Story Building provides a splendid visual termination to the approach to the campus along Hawken Drive. Together with the Physiology Lecture Theatre Group it has established a positive architectural character which should be continued in the design of the new Microbiology Building. By locating this new building generally as indicated on the diagram it would be possible to create an attractive forecourt to the J.D. Story Building, a fine approach to the lecture theatres and an attractive setting for the new Microbiology Building.

Area west of Mill Road

This large area presents one of the most difficult problems on campus. It contains a wide variety of buildings including academic departments, colleges and undergraduate residential accommodation, a drill hall and some semi-industrial activities. The problem is complicated by the topography and the alignment of the University boundary. Other factors which affect the area concern the future of Mill Road and a possible future link between St. Lucia Rd. and Carmody Rd. The preparation of a firm plan for the development of these areas must wait upon a resolution of these issues.

In the meantime, the road system could be improved as indicated on the diagram. This provides for a roadway between the Veterinary School and the Agriculture and Entomology Building, giving vehicular access to the new entrance to the Veterinary School. It also provides sites for two high rise buildings which could be used for general or specific departmental purposes as required.



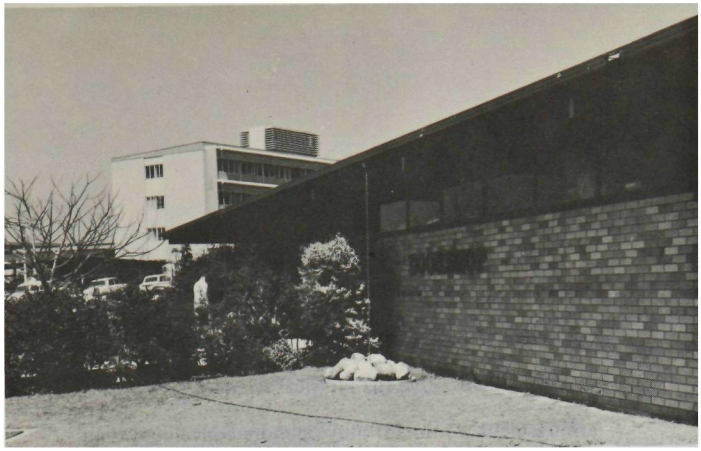
THE COLLEGES

The colleges are well-located on the campus and are not directly affected by the ideas contained in this report. However, some additional landscaping could with advantage be provided for some of the college buildings and they should be included in any landscaping proposals prepared for the whole campus. A possible site for a future college building is shown marked K on the diagram.

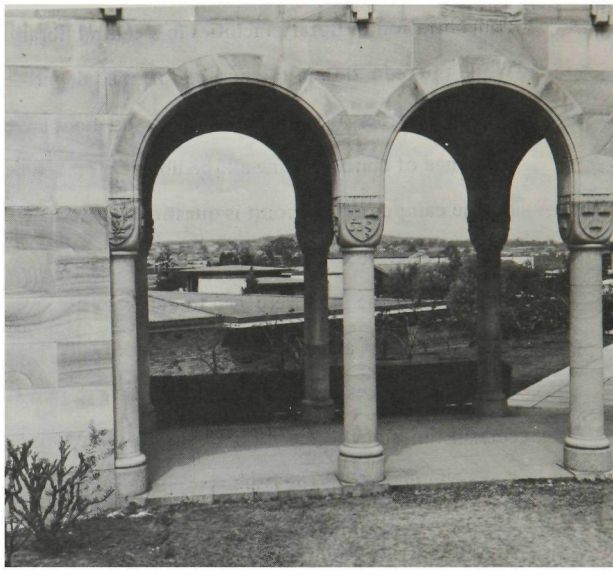
The Bookshop and University Press

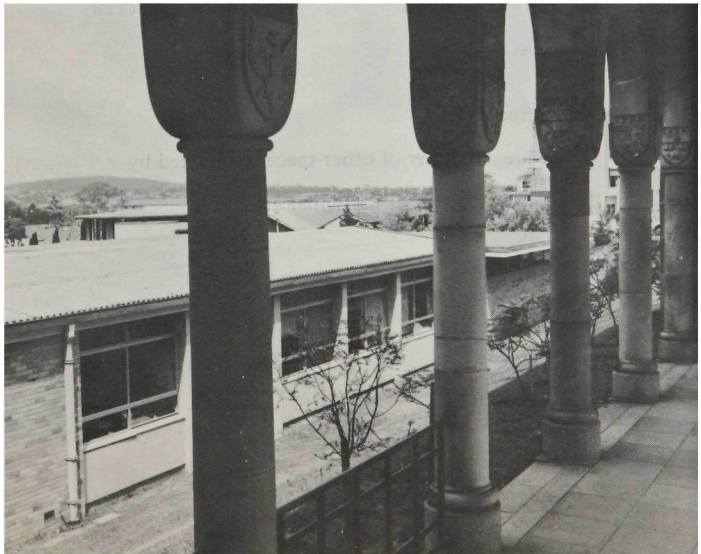
The decision to site the bookshop and the University Press in its present location was unfortunate in terms of Civic Design. In itself an attractive and well designed building, it nevertheless interrupts what would otherwise have been a most attractive view of the lagoon and the outlying grounds of the campus through the cloisters in the Great Court.

The Press and the bookshop are now in urgent need of additional accommodation. Consideration has been given to increasing the height of the existing building. If an alternative solution can be found and afforded it should be preferred to providing extensions on the existing site. Possible solutions would be to provide accommodation in either the geology or chemistry buildings when the departments which at present occupy these buildings move to new accommodation. The best solution would be to erect a completely new building sufficient for present needs, with room on the site for future expansion. A compromise solution would be to place the first stage of a new building between the existing building and the physics annexe to terminate the view along the road which is to be built between the staff club and the engineering department. A building on this site could be designed to allow for future expansion.



BOOKSHOP





Libraries

The Australian Universities Commission has recommended the consolidation of library facilities on the campus. This would involve the elimination of departmental libraries which exist at present and the concentration of library facilities in a central library. While the reduction in the number of small departmental libraries might be shown to be justified, the prudence of concentrating all the library facilities on the campus at one point is questionable on a number of grounds. Among the most significant objections is the inconvenience to departments located furthest away from a central library. The walking distances involved and the severity of rain at certain times of the year in Brisbane are among the factors which affect the issue.

An alternative solution might be to build a main central library, with two or three smaller libraries to serve related groups of departments at appropriate points on the campus. A biological sciences library could provide for the needs of the scientific departments at a point near Mill Road, and a second library could be located in the vicinity of the engineering departments to serve the physical sciences. Such an arrangement would not only be more convenient than a completely centralised system but would also distribute the load on the available car parking facilities. Sites for libraries for these purposes are indicated on the diagram.

University Health Service

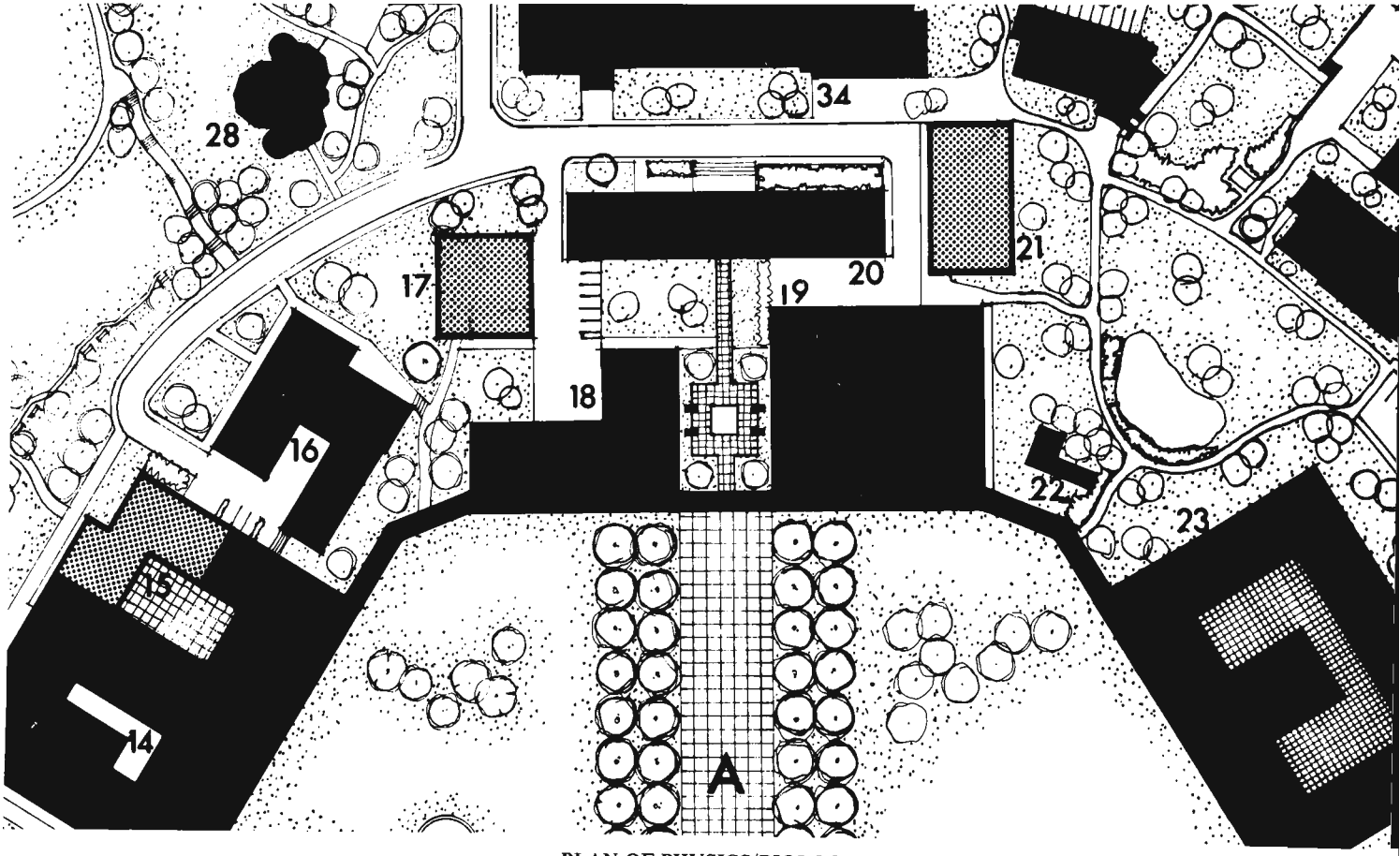
The Health Service and its associated activities are playing an increasingly important role in the life of the University. The existing accommodation in the Union Building is no longer adequate or suitable and it is suggested that appropriate accommodation could be provided in the proposed extensions to the Social Sciences Building.

Other Spaces

There are a number of other spaces contained by buildings which merit particular attention.

Between Physics and Biological Sciences Buildings

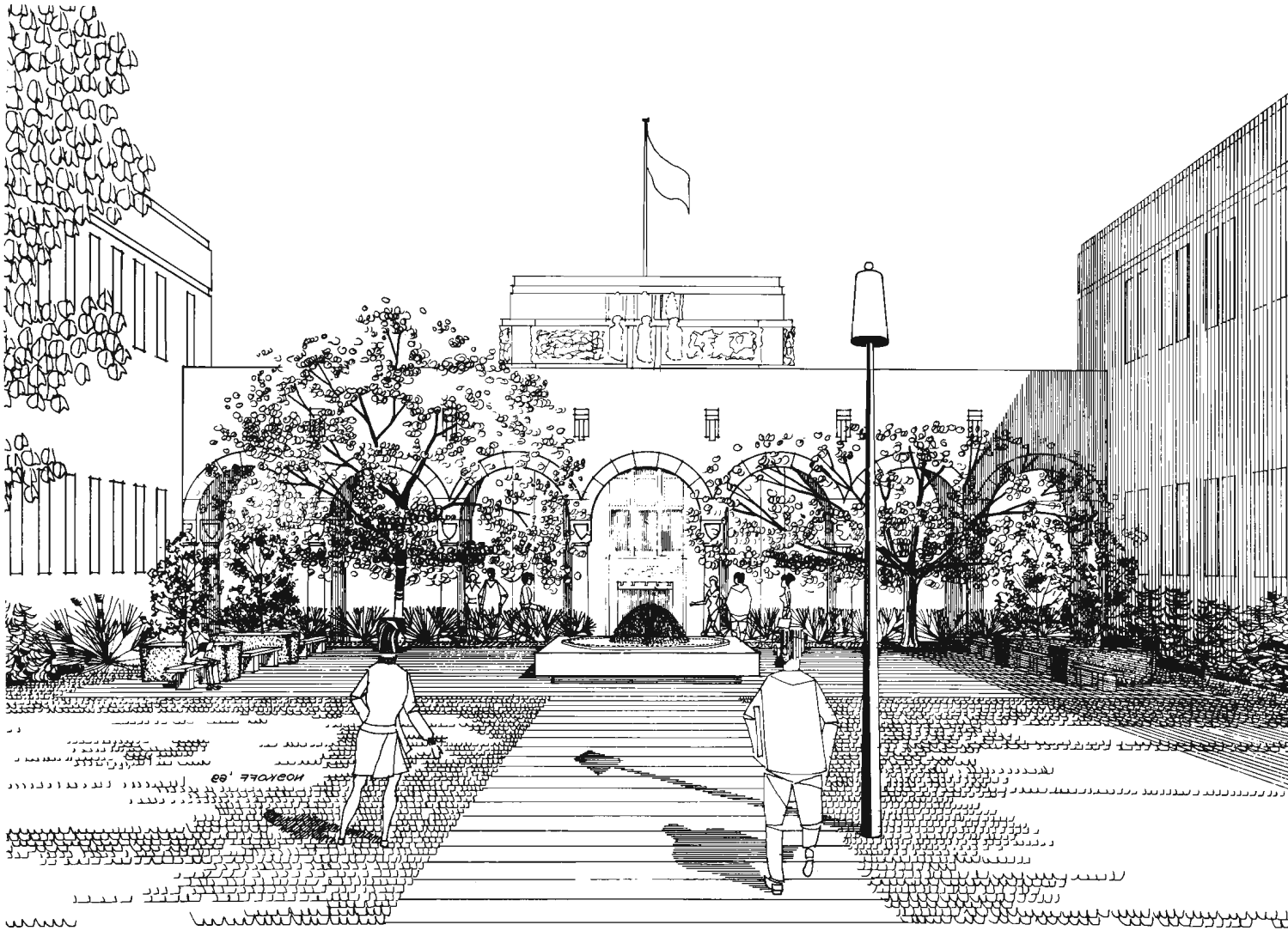
The elimination of Circular Drive would enable the area extending from the cloisters, linking the Physics and Biological Sciences Buildings and passing between the Mathematics and Biochemistry Buildings to the Physiology Building, to be converted into an attractive and useful landscaped area. The levels are such that a scheme of special interest could be developed which would also provide a more attractive setting for the buildings containing the area than exists at present.



PLAN OF PHYSICS/BIOLOGY SPACE

Between Physics and Geology Buildings

The small area between the Physics and Geology Buildings lends itself to a more formal landscape treatment in view of its scale, form and axial location. The design illustrated includes a small fountain, seats and shade planting.



Miscellaneous Buildings

There is a growing demand for a number of small buildings on the campus, to provide for specific needs. These include a kindergarten and child minding centre for the children of staff and students, and residential accommodation for caretakers, groundsmen and other staff. Sites for these purposes can be found on the campus and are suggested in the diagram.

Sports Areas

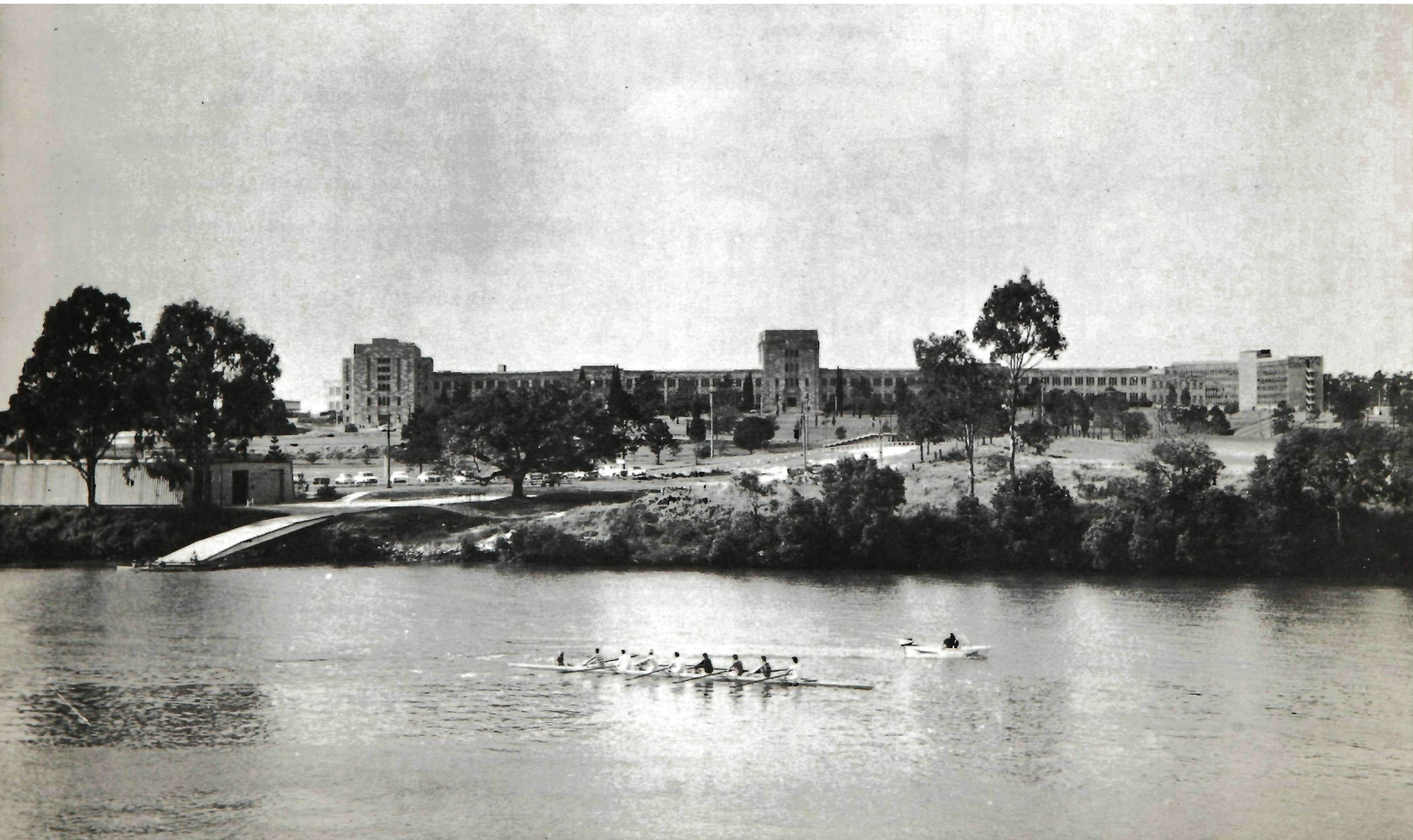
The ovals and sports areas are invaluable assets on the campus both for sporting activities and as settings for the buildings. Some additional planting could be undertaken to define particular areas and to screen maintenance buildings.

The Lagoon

The lagoon is a very attractive feature of the campus. It should be available for the use and enjoyment of the whole University community. The scheme provides for a foot-path system around it. The treatment of its banks, additional landscaping and the foot-paths should take into consideration the need to ensure the preservation of breeding areas for the wild fowl which inhabit the lagoon.

The River

The Brisbane River defines the boundary of the campus on three sides. It is an important natural asset which could be more fully exploited in the future. The mooring of barges along the bank for use by sporting or other societies is one possibility which could be explored. This is done successfully elsewhere in Australia and overseas. If it were done here it might encourage a greater use to be made of the river and its banks.



CONCLUSION

The University finds itself today at a critical stage in its development. Change is in the air and consideration is being given by staff and students to ways and means of improving every aspect of University life. Teaching methods, administrative procedures and accommodation are only three of a whole range of matters being critically examined in an endeavour to adapt the past and the present to meet the needs of the future.

The physical development of the campus to provide adequate accommodation for the diversifying needs of the expanding University community is one of the most pressing problems of all. In many departments the accommodation is both inadequate and unsuitable and new accommodation will have to be provided if the University is to maintain the services which it now offers to the rapidly growing number of students.

A stage of development has now been reached at which the University is confronted with two broad choices. It may either allow traffic to make further encroachments on the amenity of the campus or it may revert to the principle underlying the original plan, and create a traffic-free pedestrian precinct.

The decision on which course is to be followed will have far-reaching effects on the form and quality of the environment of the whole University. If it is decided to revert to the original principle of a pedestrian precinct the University can look forward to the development of an efficient, safe and attractive environment in which the courts contained by the buildings will be a bonus in terms of attractive and useful open spaces.

Whatever plan is adopted the detailed design of individual buildings will be undertaken by either the University Architect or private or departmental architects appointed to carry out the work. If the best results are to be achieved it is essential for these individual architects to be properly briefed and informed about the objectives of the master plan. In this regard the co-ordinating role of the University Architect is of the greatest importance and his office should be equipped and staffed to enable him to undertake this task.

To put forward ideas of the kind contained in this report it has been necessary to suggest in diagramatic form outline shapes for future buildings. They are diagramatic only and no attempt has been made to predetermine the architectural design of the buildings.

If the ideas underlying this report are acceptable to

the University, the next stage should be to prepare a detailed plan for future development. It is at this stage that questions of building priority and the staging of development should be considered and incorporated in the plan.

RECOMMENDATIONS

The main recommendations which emerge from the ideas contained in this report are as follows:-

1. Determine the ultimate size of the University at St. Lucia in terms of student and staff numbers.

2. Prepare a detailed master plan for the future development of the campus which:-
   (a) by the elimination of the existing Circular Drive re-establishes the basic principle of a pedestrian precinct upon which the original plan for St. Lucia was based;
   (b) locates future buildings to create a series of courts and landscaped open spaces;
   (c) recognises the quality and permanent importance of the existing buildings forming the core of the University.
   (d) provides an efficient road system and adequate car parking space;
   (e) makes more effective use of landscape as a means of defining space and of creating an environment appropriate for the purposes of the University.

3. Resist the construction of temporary buildings and prepare a programme for the removal of existing derelict structures on the campus.

4. Following the preparation of a detailed master plan obtain the services of a professionally qualified landscape architect to prepare a landscape scheme for the campus, and establish a plant nursery at St. Lucia or Moggill to provide the necessary landscape material.

5. Establish an order of priority for future buildings based on departmental requirements.

6. In consultation with the State Government and the Co-ordinator General identify responsibility for the implementation of the building programme and ensure that the University Architect's Department is staffed and equipped to enable him to undertake his responsibilities.

7. Establish a committee procedure within the University to delegate responsibility and enable decisions on matters related to buildings and grounds to be taken and implemented as efficiently as possible.

LEGEND

1 MAIN BUILDING
2 EXISTING LIBRARY
3a NEW CENTRAL LIBRARY, STAGE 1
3b NEW CENTRAL LIBRARY, STAGE 2
4 SPORTS UNION
5 PHYSICAL EDUCATION - EXTENSION
6 PHYSICAL EDUCATION - EXISTING
6a OLYMPIC POOL
7 SOCIAL SCIENCES
8 SOCIAL SCIENCES - EXTENSION
9 LECTURE THEATRE
10 FORUM
11 UNION THEATRE
12 UNION BUILDING
13 BUS STOP
14 CHEMISTRY
15 CHEMISTRY - EXTENSION
16 UNIVERSITY PRESS & BOOKSHOP
17 UNIVERSITY PRESS - EXTENSION
18 GEOLOGY
19 PHYSICS
20 PHYSICS ANNEXE
21 PHYSICAL SCIENCES LIBRARY
22 STORE
23 BIOLOGICAL SCIENCES
24 WESTERN ARTS BUILDING
25 LAW SCHOOL & DEPARTMENTAL BUILDING
26 GREAT HALL
27 AGRICULTURE & ENTOMOLOGY
28 STAFF CLUB
29 ARCHITECTURE, MUSIC & FINE ARTS
30 CIVIL ENGINEERING
31 ELECTRICAL ENGINEERING
32 MECHANICAL ENGINEERING
33 MINING & METALLURGY
34 CIVIL ENGINEERING ADMINISTRATION
35 CHEMICAL ENGINEERING
36 CHEMISTRY - NEW BUILDING
36a KINDERGARTEN
37 MATHEMATICS
38 PHYSIOLOGY
39 ANIMAL HOUSE
40 LECTURE THEATRES
41 BIOCHEMISTRY
42 MICROBIOLOGY
43 ADMINISTRATION
44 ANATOMY
45 BIOLOGICAL SCIENCES LIBRARY
46 VETERINARY SCIENCE
47 NEW BUILDING
48 INDUSTRIAL CENTRE
49 GARDENERS
50 NEW BUILDING
51 WORKSHOP
52 GLASS HOUSES
53 QUEENSLAND UNIVERSITY REGIMENT
54 NEW BUILDING
55 CARETAKING STAFF
56 ROWING SHED
57 PAVILION
58 TENNIS PAVILION
59 INFORMATION

COURTS

A GREAT COURT
B EAST COURT
C LIBRARY COURT
D ENTRANCE COURT
E GREAT HALL COURT
F WEST COURT
G UNION COURT

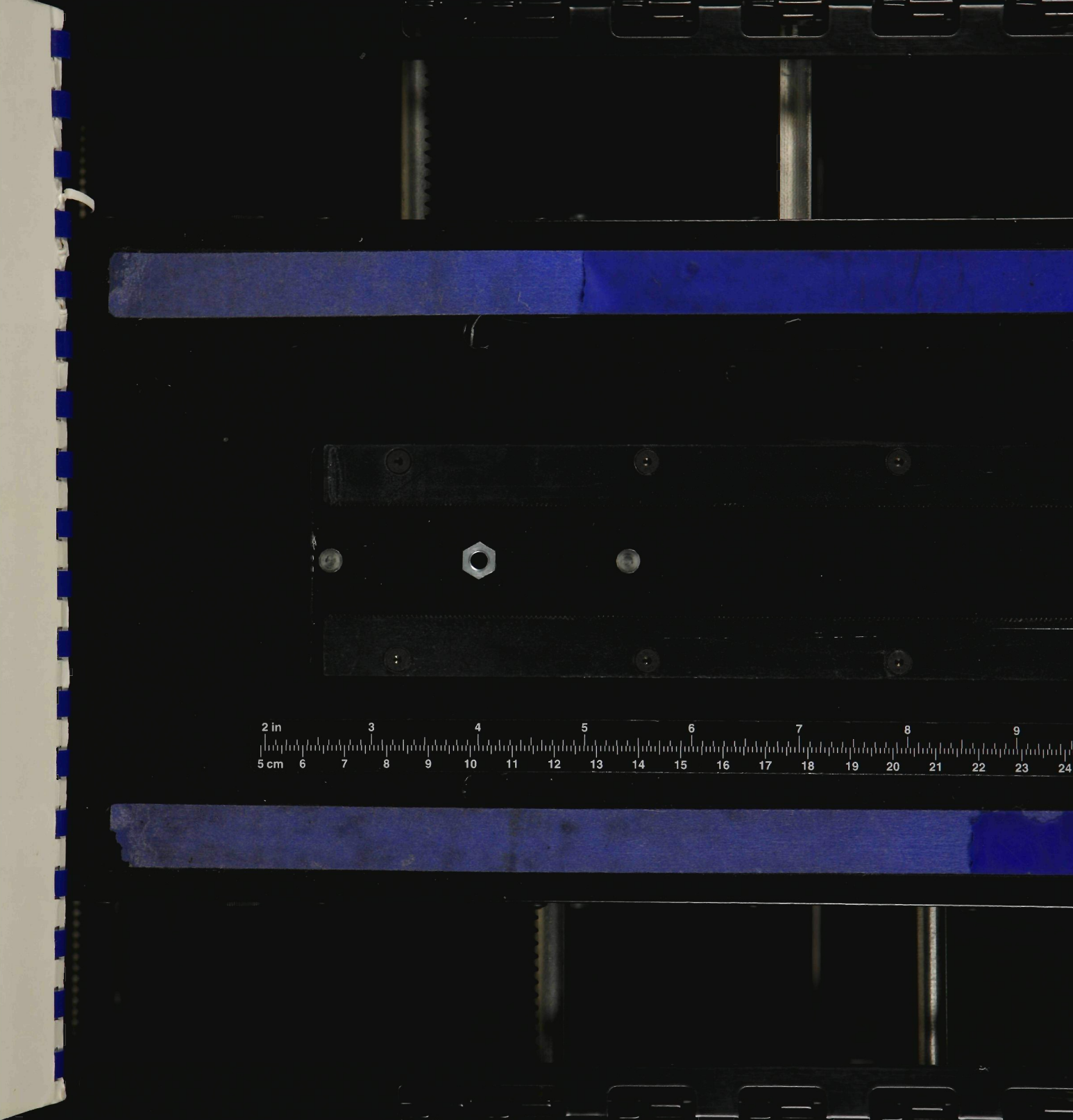
COLLEGES

a WOMEN'S COLLEGE
b DUCHESNE COLLEGE
c ST. LEO'S COLLEGE
d ST. JOHN'S COLLEGE
e EMMANUEL COLLEGE
f KING'S COLLEGE
g UNION COLLEGE
h CROMWELL COLLEGE
i PRESBYTERIAN & METHODIST WOMEN'S COLLEGE
j INTERNATIONAL HOUSE
k FUTURE COLLEGE SITE

EXISTING NON UNIVERSITY

EXISTING UNIVERSITY

PROPOSED UNIVERSITY


2 in
3
4
5
6
7
8
9
5 cm
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24